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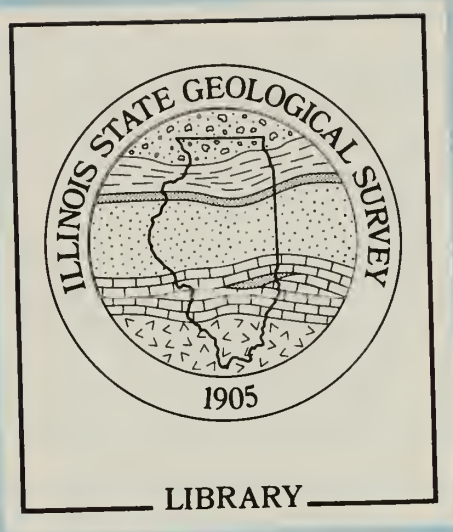
LAKE MICHIGAN BIBLIOGRAPHY: 1860-1988  
GEOLOGICAL AND PHYSICAL PROCESSES

By Nancy Peterson Holm and Beth McArdle Morgan

Lake Michigan Coast and Basin Studies  
Illinois State Geological Survey  
Champaign, Illinois

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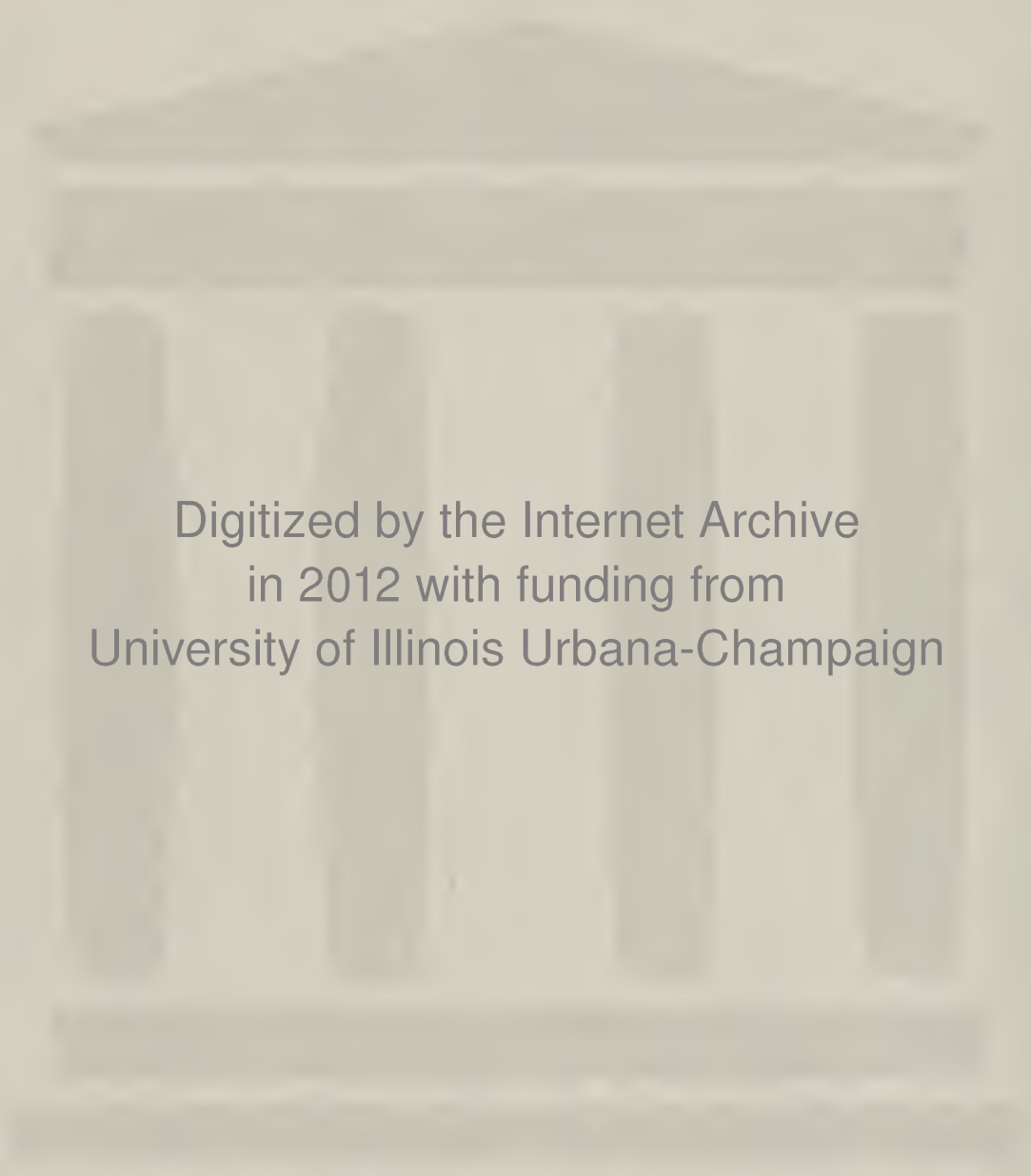
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## ACKNOWLEDGEMENTS

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We also wish to express appreciation to Charles Collinson (ISGS), Robert Gorden (INHS), Donald Gatz (ISWS), and Peter Lamb (ISWS) for their input on the initial three-survey Lake Michigan Scoping Study (sponsored by the Illinois Department of Energy and Natural Resources, Board of Natural Resources and Conservation) from which the Lake Michigan bibliographic effort began.

## INTRODUCTION

This bibliography covers research publications from 1860 to mid-1988 on geological and physical processes in Lake Michigan. The bibliography contains approximately 3,100 entries. The references are arranged alphabetically by the last name of the principal author. Indexes are given for author, subject, and area of the lake studied. For more discussion of the indexes, see Guide to the Indexes.

The references from 1960-86 were obtained from searches for specific keywords on the computerized Lake Michigan bibliographic database at the Illinois State Geological Survey. That database covers all subjects on Lake Michigan from 1960-86 and has been published as "Lake Michigan Bibliography, Vols. 1 and 2" by Nancy Peterson Holm and Beth McArdle Morgan (Illinois State Geological Survey Environmental Geology Notes 131 and 132). That database was begun in 1984 as part of the Lake Michigan Scoping Study jointly undertaken by the three Illinois Scientific Surveys and sponsored by the Illinois Department of Energy and Natural Resources, Board of Natural Resources and Conservation. The project continued after the scoping study with funding from The Joyce Foundation. This allowed completion of the database and publication of the bibliography covering the dates 1960-86 (EGN 131 and 132). Recent funding from the U.S. Geological Survey supported the compilation of references on geological and physical processes back to 1860 and from 1987 to mid-1988. These references were added to the geological and physical processes references taken from the main Lake Michigan bibliography (EGN 131 and 132) to produce this present specialized bibliography.

References for this bibliography and the main Lake Michigan bibliography were compiled primarily from searches of on-line computer databases (Biological Abstracts, Chemical Abstracts, Dissertation Abstracts, Enviroline, GEOREF, NTIS, Selected Water Resources Abstracts, and University of Michigan DATRIX), Sea Grant publication listings, Department of Natural Resources publication listings of each surrounding state, International Joint Commission bibliographies, NOAA Great Lakes Environmental Research Laboratory reports, and State Survey publication listings. Furthermore, separate searches were done of journals not covered adequately in the previous searches (e.g., J. Physical Oceanography); also, many of the articles were checked for additional references.

The references were entered into a computerized database (using a database management program on a PRIME 9955 computer system) allowing searching and sorting by author, title, date, keywords, etc. In order to identify keywords more specifically than from just the title, copies or abstracts of as many articles as possible were obtained. Due to constraints of time and availability of some articles, to date 65% of the articles listed in the bibliography have been gathered. Keywords were entered for each article by examining the actual article when available, otherwise from the title, with other important keywords added to maintain uniformity for indexing. All articles were classified by one or more main subjects--biology, chemistry, geology, meteorology, physical limnology, hydrology, management, socio-economics/economics, or recreation--and then further subclassified.

The subjects covered in this bibliography are those of interest to the U.S. Geological Survey (as indicated by U.S.G.S. personnel) because this special compilation of references on geological and physical processes was done under contract for them. Consequently, subjects listed in the index such as benthic invertebrates, deposition, stratification, transportation, etc., do not include all the references on those subjects that have been done on Lake Michigan (for additional references and subjects, see EGN 131 and 132). Atmospheric deposition is not specifically covered and references on

deposition mainly relate to sediments. Benthic invertebrate studies are included (Mysis was not searched separately as it is not truly benthic), but if related to power plant studies, only preoperational monitoring studies are listed. The U.S.G.S. interests are mainly in bioturbation and distribution of benthic invertebrates as important to cycling of compounds. Most phytoplankton references relate to sediments or diatoms. References on eutrophication or trophic conditions or water quality are not included unless they contain other keywords of interest. Some of the earliest limnological data are in strictly biological papers not dealing with geology and, therefore, most are not included here. References in this bibliography on inorganics, hydrocarbons, phosphorus, metals, radionuclides, or organics usually relate to sediments, dispersion, or tributary loading because the U.S.G.S. indicated their interest in research is in sediment chemistry rather than water quality and pollution. Articles on power plants are not included except for some preoperational studies and others which specifically discuss currents or sediment transport. Most thermal pollution articles are excluded, and most temperature references that are included are on temperature profiles and thermal characteristics of Lake Michigan. Recreation is not covered except as it relates to shoreline development. References on coastal lakes along Lake Michigan are usually not listed. Articles on the Illinois River are only included if they also mentioned Lake Michigan. No general annual reports are included.

Any omissions or errors in the references are inadvertent. The Lake Michigan Coast and Basin Studies Section would appreciate being notified of any additions or corrections.

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This is in wprwpt.les - changes.

December 21, 1989

Dear

In addition to the update to the bibliography on Lake Michigan I have sent you, I would like to submit this list of corrections in the bibliography we sent you this spring. As I collected articles and checked them against the information I had I found these changes needed to be made in the record.

Number	Author	Change
5504	Saulesleja	Change date from 1987 to 1986
7348	Southeastern Wisc. Regional Planning Comm.	Change date in press to 1987
3866	U.S. Army Corps of	Delete, it is a repeat
6462	Cutshall, et al.	Change pages 4232-4235 to 4232-4245
2504	Roden	Delete, it is a repeat
6713	Wisc. Dept. Nat. Resour.	Delete, it is a repeat
5926	Lee	Change pages 89-112 to 89-111
6769	Knight	Add authors Nelson, J. G. and Priddle, G. B.  Change title to "Great Lakes Shoreline Resource Management: A Selected Annotated Bibliography."  Change Source to "Heritage Resources Centre"
5218	Foerstner	Change author to Forstner
5702	Howlett	Change Univeristy to University
5614	Petterssen	Change Univeristy to University
7012	Brater	Change pages to 214-226.
5910	Bolsenga	Delete, not on Lake Michigan
5530	Gauthier, et al.	Delete, it is not Lake Superior





Number	Author	Change
6242	Schertler, et al.	Change source to "NASA Tech. Memo. NASA-TMX-71815. NTIS. Springfield, Virginia.

Sincerely





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Lineback, J. A.			5/22/91
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## GUIDE TO THE INDEXES

Indexes are given for author, subject, and area of the lake studied. The author index lists all authors (principal and joint). Publications by the various boards of the International Joint Commission (Great Lakes Water Quality Board, Science Advisory Board, etc.) are all listed under International Joint Commission.

Due to size limitations, not all subjects are included in the index. If a word is not listed, there may be no papers on that subject or it may be classified under a broader keyword. The references listed under any one keyword are not inclusive, and additional subjects should be examined. The term METALS includes major metals (e.g., Ca) and trace metals. Specific metals are also indexed. The term HYDROLOGY covers river or tributary flow, groundwater and water budget articles. References on chlorinated hydrocarbons are contained under ORGANICS; usually articles on nonchlorinated hydrocarbons are indexed under HYDROCARBONS. Meteorological studies are indexed under a more specific term (i.e., STORMS, PRECIPITATION, LAKE EFFECT, etc.) See METEOROLOGY in the subject index for a listing of additional specific terms.

HISTORY, REVIEW, and SUMMARY are used as keywords to help users identify articles that may give background or a summation on a topic. Subjects with many references are often divided when possible into appropriate subdivisions. The term "general" may be used as a subdivision when some of the articles do not fit into the designated subdivisions and these remain indexed by the main word.

In the subject index, when two words are joined by an underscore ("\_"), this indicates that both words are found in the keywords for an article but not necessarily next to each other. The two words are associated in the index to more specifically define the subject and are used as subheadings. For example, LAKE LEVELS\_HISTORY gives the numbers for references on history of lake levels whereas LAKE LEVELS\_MANAGEMENT gives the numbers for references on management of lake levels.

If a specific subject has only a few references, more information can be found by looking under a broader subject which includes it. To direct the user to other appropriate words, certain subjects are cross-referenced with the symbol "SA:" (meaning "see also"). "SA:" means another access point and is used in three ways:

- 1) SA can mean that additional references can be found under another word which does not necessarily include the present word, e.g., SEDIMENTS\_TRANSPORT (SA: littoral drift).
- 2) It can mean that this subject is also included under a broader category, e.g., BULKHEADS (SA: coastal structures), where additional references are found as well as the present ones. This was done because some articles did not give specifics, and it is meant to show that the index word is not inclusive.
- 3) SA is also used to indicate a more specific topic listed elsewhere for that word, such as DIVERSION (SA: history\_diversion), if one wants a further breakdown of the subject.

In addition to "SA:", the user is referred by the symbol "S:" (meaning "see") to a different word in the index which has been used in place of another word, e.g., MARSHES (S: wetlands).

The area index lists articles by area, if known more specifically than just Lake Michigan. While all articles are on Lake Michigan, some articles may be on the Great Lakes in general or also discuss the other Great Lakes. Only the other Great Lakes and large rivers are included in the area index along with

cities, states, bays, harbors, tributaries, and power plants around Lake Michigan. Again, because not all articles could be examined to find the specific area studied, any particular area in the index does not necessarily cover all articles on that area.



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	1091,	1094,	1098,	1099,	1100,	1159,
	1166,	1167,	1177,	1178,	1179,	1205,
	1211,	1248,	1249,	1259,	1260,	1265,
	1266,	1268,	1270,	1272,	1274,	1276,
	1279,	1284,	1285,	1291,	1294,	1296,
	1297,	1298,	1301,	1311,	1332,	1339,
	1364,	1365,	1369,	1373,	1378,	1382,
	1383,	1391,	1434,	1483,	1484,	1485,
	1486,	1496,	1497,	1499,	1510,	1512,
	1513,	1515,	1533,	1543,	1545,	1547,
	1549,	1574,	1583,	1613,	1618,	1628,
	1630,	1645,	1648,	1730,	1736,	1781,
	1816,	1821,	1828,	1833,	1838,	1848,
	1985,	1987,	2021,	2022,	2023,	2024,
	2037,	2050,	2112,	2173,	2214,	2236,
	2240,	2251,	2335,	2336,	2342,	2355,
	2396,	2440,	2441,	2470,	2478,	2483,
	2514,	2533,	2550,	2568,	2580,	2584,
	2585,	2670,	2671,	2682,	2691,	2694,
	2695,	2696,	2697,	2714,	2715,	2716,
	2754,	2755,	2757,	2758,	2759,	2760,
	2762,	2766,	2770,	2771,	2772,	2773,
	2786,	2789,	2793,	2800,	2801,	2802,
	2804,	2806,	2808,	2809,	2810,	2813,
	2814,	2816,	2833,	2838,	2843,	2845,
	2870,	2917,	2926,	2927,	2936,	2939,
	2949,	2968,	2974,	2981a,	2981b,	2982,
	2983,	3016,	3017,	3027,	3030,	3049,
	3113,	3115,	3117,	3119,	3120,	3121,
	3122,	3123,	3125,	3126,	3127,	3128,
	3131,	3140				

BEACHES_ EROSION .....	9,	30,	47,	48,	61,	71,
	99,	100,	103,	129,	183,	192,
	193,	245,	249,	250,	253,	269,
	220,	221,	222,	223,	225,	226,

BEACHES_EROSION (continued) .....	337,	338,	339,	340,	342,	425,
	430,	437,	438,	487,	488,	501,
	516,	527,	556,	557,	558,	559,
	560,	561,	567,	603,	605,	639,
	649,	655,	656,	658,	660,	663,
	664,	665,	666,	667,	670,	671,
	672,	673,	674,	678,	679,	739,
	740,	741,	754,	760,	805,	812,
	844,	848,	895,	903,	905,	906,
	907,	918,	920,	921,	996,	1003,
	1060,	1064,	1065,	1070,	1080,	1082,
	1083,	1084,	1098,	1099,	1100,	1159,
	1166,	1167,	1178,	1259,	1260,	1265,
	1266,	1268,	1270,	1272,	1274,	1276,
	1279,	1285,	1296,	1297,	1298,	1301,
	1311,	1332,	1339,	1364,	1365,	1369,
	1378,	1483,	1484,	1485,	1486,	1499,
	1513,	1533,	1543,	1549,	1574,	1618,
	1628,	1645,	1648,	1730,	1736,	1781,
	1816,	1821,	1828,	1833,	1987,	2021,
	2022,	2023,	2024,	2037,	2050,	2173,
	2214,	2236,	2240,	2335,	2336,	2355,
	2440,	2441,	2478,	2483,	2568,	2670,
	2671,	2691,	2694,	2695,	2696,	2697,
	2714,	2715,	2716,	2754,	2755,	2757,
	2758,	2759,	2760,	2762,	2766,	2771,
	2772,	2773,	2786,	2793,	2800,	2801,
	2802,	2804,	2806,	2808,	2809,	2810,
	2813,	2814,	2816,	2833,	2838,	2843,
	2845,	2870,	2917,	2926,	2927,	2936,
	2939,	2949,	2968,	2981b,	2983,	3016,
	3027,	3030,	3049,	3113,	3117,	3119,
	3120,	3121,	3122,	3123,	3125,	3126,
	3127,	3128				

BEACHES_GEOMORPHOLOGY .....	9,	37,	129,	193,	245,	247,
	250,	253,	260,	269,	331,	332,
	333,	342,	348,	385,	437,	438,
	516,	527,	556,	557,	559,	603,
	605,	639,	657,	660,	664,	665,
	666,	667,	668,	670,	672,	678,
	708,	749,	750,	751,	754,	759,
	760,	805,	812,	835,	841,	844,
	847,	848,	895,	903,	905,	906,
	907,	920,	925,	960,	985,	989,
	990,	996,	1060,	1064,	1065,	1075,
	1082,	1083,	1084,	1091,	1094,	1098,
	1099,	1159,	1166,	1167,	1177,	1178,
	1179,	1205,	1211,	1260,	1265,	1266,
	1270,	1365,	1434,	1483,	1496,	1497,
	1510,	1515,	1545,	1547,	1613,	1730,
	1781,	1821,	1985,	2050,	2173,	2214,
	2236,	2335,	2336,	2342,	2355,	2396,
	2440,	2441,	2470,	2514,	2550,	2580,
	2691,	2694,	2714,	2766,	2773,	2793,
	2810,	2983,	3016,	3017,	3117,	3121,
	3123,	3126,	3127,	3128,	3140	

BEACHES_GRAIN SIZE .....	247,	249,	250,	269,	603,	605,
	653,	749,	759,	835,	911,	918,

BEACHES_GRAIN SIZE (continued) .....	920,	1082,	1084,	1094,	1167,	1205,
	1248,	1249,	1266,	1483,	1484,	1485,
	1486,	1510,	1512,	1515,	1645,	1781,
	1848,	2021,	2022,	2023,	2173,	2236,
	2251,	2514,	2533,	2550,	2758,	2806,
	2939,	2974,	2981a,	2982		

BEACHES_RECREATION .....	249,	250,	253,	412,	488,	560,
	649,	721,	1018,	1260,	1268,	1279,
	1311,	1332,	1339,	1369,	1382,	1383,
	1987,	2696,	2759,	2766,	2789,	2845,
	2981a,	2981b,	3027			

BEDROCK .....	129,	183,	255,	256,	270,	281,
	320,	351,	391,	398,	476,	478,
	480,	481,	564,	889,	943,	1009,
	1199,	1207,	1211,	1214,	1215,	1219,
	1299,	1317,	1365,	1394,	1440,	1506,
	1651,	1653,	1669,	2025,	2034,	2038,
	2039,	2105,	2173,	2236,	2355,	2553,
	2556,	2560,	2602,	2657,	2711,	2919,
	3006,	3019,	3021,	3040,	3045,	3063,
	3064,	3067,	3107,	3163		

BENTHIC_INVERTEBRATES .....	31,	41,	42,	43,	44,	85,
(SA: clams)	131,	132,	142,	143,	147,	152,
(SA: Ostracoda)	155,	162,	164,	176,	202,	204,
(SA: snails)	213,	216,	219,	221,	222,	259,
	345,	357,	393,	394,	395,	405,
	448,	467,	492,	496,	576,	582,
	583,	584,	585,	592,	593,	635,
	736,	746,	769,	775,	776,	777,
	779,	780,	781,	784,	785,	827,
	838,	839,	879,	894,	901,	914,
	929,	932,	944,	945,	946,	953,
	954,	955,	956,	984,	992,	1002,
	1024,	1101,	1115,	1127,	1136,	1147,
	1156,	1157,	1158,	1169,	1180,	1181,
	1192,	1222,	1223,	1224,	1225,	1226,
	1227,	1228,	1229,	1230,	1264,	1286,
	1287,	1289,	1292,	1293,	1295,	1312,
	1316,	1318,	1319,	1324,	1429,	1431,
	1446,	1447,	1458,	1476,	1483,	1485,
	1489,	1503,	1504,	1505,	1534,	1535,
	1536,	1537,	1558,	1565,	1566,	1594,
	1641,	1674,	1675,	1700,	1711,	1734,
	1745,	1752,	1753,	1761,	1779,	1796,
	1797,	1820,	1844,	1845,	1895,	1901,
	1902,	1903,	1904,	1905,	1906,	1907,
	1908,	1909,	1935,	1938,	1939,	1940,
	1941,	1942,	1943,	1962,	1963,	1964,
	1965,	1966,	1967,	1968,	1969,	1970,
	1971,	1972,	1973,	1974,	1975,	1976,
	1994,	2068,	2075,	2161,	2165,	2166,
	2168,	2170,	2181,	2184,	2185,	2186,
	2213,	2219,	2233,	2234,	2244,	2260,
	2272,	2274,	2275,	2278,	2279,	2280,
	2282,	2295,	2310,	2403,	2404,	2407,
	2416,	2433,	2473,	2481,	2487,	2488,
	2490,	2541,	2546,	2547,	2556,	2560,



BENTHIC_INVERTEBRATES (continued) .....	2595,	2596,	2613,	2614,	2656,	2665,
	2667,	2701,	2709,	2729,	2738,	2758,
	2780,	2887,	2896,	2919,	2924,	2953,
	2964,	2988,	2990,	3023,	3024,	3035,
	3036,	3037,	3038,	3051,	3075,	3076,
	3077,	3078,	3079,	3080,	3152	
BENTHIC_INVERTEBRATES_ABUNDANCE .....	41,	42,	43,	162,	204,	219,
	393,	395,	448,	582,	584,	585,
	593,	635,	781,	839,	946,	1101,
	1127,	1157,	1158,	1180,	1223,	1227,
	1228,	1229,	1230,	1312,	1566,	1641,
	1674,	1675,	1711,	1734,	1796,	1797,
	1845,	1901,	1904,	1905,	1906,	1907,
	1962,	1967,	1968,	1969,	1970,	1972,
	1973,	1974,	2165,	2166,	2168,	2219,
	2233,	2278,	2279,	2280,	2404,	2416,
	2613,	2738,	2953,	3023,	3024,	3051,
	3075,	3076,	3079,	3080		
BENTHIC_INVERTEBRATES_BIOACCUMULATION ..	31,	142,	345,	593,	736,	746,
(SA: benthic_invertebrates_uptake)	769,	775,	776,	777,	779,	780,
	781,	785,	838,	914,	932,	1136,
	1169,	1319,	1324,	1431,	1446,	1447,
	1476,	1489,	1534,	1535,	1537,	1700,
	1820,	1902,	1907,	1935,	1938,	1939,
	1940,	1941,	1942,	1943,	1966,	1994,
	2260,	2403,	2404,	2701,	2709,	2988,
	2990,	3152				
BENTHIC_INVERTEBRATES_HISTORY						
(S: history_benthic_invertebrates)						
BENTHIC_INVERTEBRATES_UPTAKE .....	593,	914,	932,	944,	1534,	1734,
(SA: benthic_invertebrates_	1994,	2488,	2988,	2990		
bioaccumulation)						
BENTHIC_TOPOGRAPHY						
(S: topography_benthic)						
BERYLLIUM .....	312,	782,	933,	1055,	1136,	1596,
	1650,	1938,	2244,	2245,	2511,	2512
BIBLIOGRAPHY .....	84,	303,	392,	874,	916,	1062,
	1156,	1175,	1293,	1352,	1480,	1711,
	1937,	2046,	2159,	2163,	2236,	2599,
	2753,	2879,	2893,	2898,	2917,	2949,
	3007,	3071,	3087,	3138,	3163	
BIDDULPHIA (SA: diatoms) .....	3147					
BIOTURBATION .....	31,	467,	490,	492,	496,	576,
	580,	781,	782,	784,	789,	800,
	838,	888,	914,	953,	954,	955,
	956,	1002,	1429,	1503,	1504,	1505,
	1534,	1537,	1596,	1761,	1802,	1907,
	1935,	1938,	1939,	1940,	1941,	1942,
	1943,	1963,	1964,	1966,	1971,	1976,
	2186,	2229,	2244,	2272,	2274,	2275,

BIOTURBATION (continued) ..... 2527, 2547, 2556, 2729, 2924, 2990,  
3036, 3037

BLUFFS (general) ..... 515, 517, 597, 753, 1075, 1093,  
1177, 1553, 1555, 1623, 1913, 2550,  
2674, 3131

BLUFFS\_EROSION ..... 9, 30, 47, 48, 71, 98,  
99, 100, 102, 103, 129, 193,  
245, 246, 248, 249, 252, 253,  
268, 269, 282, 331, 333, 334,  
335, 336, 338, 339, 340, 342,  
344, 386, 387, 388, 389, 425,  
437, 476, 516, 555, 558, 561,  
565, 603, 605, 629, 630, 639,  
655, 659, 660, 661, 664, 674,  
678, 679, 700, 740, 752, 754,  
755, 756, 757, 805, 806, 807,  
809, 810, 811, 812, 870, 883,  
890, 903, 918, 920, 979, 996,  
1006, 1017, 1019, 1043, 1063, 1064,  
1065, 1077, 1080, 1082, 1083, 1098,  
1099, 1159, 1176, 1260, 1266, 1268,  
1270, 1272, 1276, 1279, 1280, 1301,  
1316, 1355, 1424, 1425, 1426, 1427,  
1428, 1469, 1470, 1485, 1530, 1542,  
1543, 1549, 1556, 1584, 1618, 1628,  
1645, 1648, 1730, 1736, 1750, 1781,  
1810, 1816, 1821, 1828, 1829, 1833,  
1834, 1858, 1987, 2021, 2022, 2070,  
2105, 2106, 2107, 2108, 2120, 2129,  
2131, 2173, 2182, 2187, 2214, 2229,  
2235, 2328, 2334, 2335, 2336, 2355,  
2440, 2441, 2452, 2475, 2476, 2478,  
2483, 2485, 2568, 2608, 2609, 2610,  
2694, 2695, 2757, 2760, 2765, 2768,  
2773, 2794, 2795, 2800, 2809, 2827,  
2831, 2843, 2949, 2950, 2951, 2952,  
2968, 3022, 3094, 3116, 3121, 3122,  
3123, 3127, 3154

BLUFFS\_RECESSION ..... 9, 30, 98, 99, 100, 245,  
246, 249, 252, 253, 268, 269,  
331, 333, 338, 340, 342, 344,  
386, 387, 388, 389, 476, 516,  
555, 561, 565, 603, 605, 659,  
679, 740, 754, 755, 805, 806,  
807, 809, 810, 812, 870, 903,  
979, 1006, 1017, 1043, 1077, 1080,  
1083, 1098, 1099, 1159, 1260, 1266,  
1270, 1272, 1276, 1301, 1316, 1424,  
1425, 1426, 1428, 1470, 1485, 1530,  
1542, 1543, 1584, 1628, 1645, 1730,  
1736, 1750, 1781, 1816, 1821, 1858,  
1987, 2022, 2106, 2107, 2108, 2120,  
2129, 2131, 2182, 2214, 2334, 2335,  
2440, 2452, 2476, 2483, 2485, 2608,  
2609, 2610, 2694, 2757, 2760, 2765,  
2768, 2795, 2800, 2843, 2950, 2952,  
3094, 3121, 3122, 3123, 3127, 3154

BLUFFS_SLUMPING .....	9,	47,	102,	246,	248,	252,
	253,	333,	334,	335,	336,	386,
	387,	476,	516,	558,	603,	605,
	629,	630,	639,	674,	679,	740,
	754,	756,	757,	805,	806,	811,
	812,	996,	1063,	1064,	1065,	1159,
	1176,	1272,	1276,	1280,	1427,	1469,
	1556,	1810,	1821,	1828,	1829,	1833,
	1987,	2022,	2070,	2105,	2108,	2187,
	2214,	2328,	2336,	2440,	2441,	2608,
	2800,	2827,	2831,	3042,	3043,	3094,
	3116,	3154				

# BOGS (S: wetlands)

BREAKWATERS (SA: coastal structures) ...	30,	62,	98,	99,	269,	331,
	333,	334,	335,	336,	338,	342,
	343,	487,	488,	527,	612,	631,
	754,	805,	890,	1071,	1266,	1272,
	1276,	1365,	1369,	1378,	1379,	1499,
	1736,	1781,	1816,	1821,	1828,	1848,
	1849,	1850,	1872,	2182,	2592,	2694,
	2695,	2749,	2757,	2765,	2768,	2770,
	2771,	2773,	2775,	2793,	2794,	2803,
	2806,	2807,	2810,	2833,	2838,	2840,
	2841,	2844,	3114,	3118,	3154	

BULKHEADS (SA: coastal structures) .....	30,	282,	328,	501,	558,	1098,
	1099,	1266,	1272,	1276,	1301,	2695,
	2773,	2793,	2794,	2795,	2806,	2833,
	2838,	2840,	2841,	3154		

CADMIUM .....	11,	33,	57,	89,	198,	301,
	312,	345,	346,	460,	495,	496,
	534,	728,	791,	803,	823,	824,
	825,	891,	892,	933,	983,	1029,
	1085,	1136,	1253,	1255,	1261,	1264,
	1286,	1290,	1316,	1324,	1489,	1526,
	1557,	1594,	1913,	1916,	1917,	1918,
	2023,	2063,	2084,	2085,	2119,	2244,
	2254,	2255,	2269,	2404,	2431,	2437,
	2490,	2494,	2511,	2516,	2522,	2601,
	2606,	2607,	2703,	2710,	2729,	2730,
	2733,	2739,	2740,	2747,	2818,	2883,
	2903,	2916,	3059,	3157		

CALCITE .....	416,	1055,	1133,	1669,	2119,	2321,
	2536,	2538,	2731			

# CALCITE WHITINGS (S: calcium carbonate)

CALCIUM .....	11,	12,	132,	148,	159,	178,
	224,	226,	227,	228,	312,	416,
	417,	443,	481,	528,	534,	623,
	624,	768,	770,	882,	933,	952,
	1024,	1029,	1072,	1136,	1252,	1306,
	1307,	1421,	1498,	1596,	1639,	1669,
	1681,	1713,	1714,	1744,	1825,	2061,
	2063,	2228,	2254,	2265,	2269,	2273,



CALCIUM (continued) .....	2311,	2314,	2316,	2317,	2318,	2319,
	2321,	2345,	2403,	2410,	2416,	2432,
	2435,	2436,	2491,	2495,	2521,	2522,
	2591,	2643,	2644,	2646,	2648,	2657,
	2711,	2728,	2733,	2739,	2752,	2924,
	2940,	2956,	2957			
CALCIUM CARBONATE .....	159,	623,	624,	768,	882,	1306,
	1307,	1639,	2228,	2311,	2403,	2491,
	2495,	2643,	2644,	2646,	2648,	2728,
	2924,	2956,	2957			
CALUMET STAGE (SA: lake stages) .....	129,	349,	351,	352,	353,	354,
	850,	851,	853,	898,	900,	1091,
	1211,	1623,	2716			
CARBON DIOXIDE .....	57,	211,	373,	535,	538,	539,
	767,	933,	1051,	1164,	1491,	1669,
	2295,	2360,	2490,	2734		
CARBON-14 (SA: dating) .....	81,	82,	104,	142,	351,	551,
	599,	600,	898,	899,	900,	921,
	1093,	1095,	1213,	1399,	1544,	1551,
	1552,	1628,	1632,	1633,	1634,	1635,
	1636,	1781,	2040,	2180,	2330,	2331,
	2332,	2652,	2720,	3064,	3074,	3142,
	3164,	3165				
CARBONATE .....	53,	159,	224,	247,	418,	623,
	624,	768,	882,	943,	968,	1051,
	1056,	1119,	1252,	1266,	1306,	1307,
	1639,	1669,	1825,	1832,	1862,	1863,
	2227,	2228,	2229,	2230,	2311,	2322,
	2403,	2491,	2495,	2498,	2511,	2538,
	2643,	2644,	2646,	2648,	2728,	2739,
	2924,	2940,	2956,	2957,	3006	
CERIUM .....	791,	803,	1988,	2023,	2061,	2062,
	2269,	2740				
CESIUM .....	15,	142,	236,	409,	411,	467,
	470,	491,	492,	496,	497,	703,
	782,	784,	789,	790,	794,	795,
	797,	932,	1136,	1184,	1324,	1397,
	1403,	1429,	1430,	1504,	1599,	1677,
	1745,	1746,	1938,	1994,	2023,	2116,
	2136,	2137,	2139,	2140,	2244,	2245,
	2261,	2262,	2264,	2267,	2268,	2269,
	2270,	2272,	2275,	2471,	2740,	2990,
	2991,	2993,	2999,	3106,	3152	
CHEMISTRY (S: geochemistry, inorganics, metals, organics, radionuclides, or sediments_chemistry)						
CHICAGO OUTLET (SA: lake outlets) .....	352,	353,	1090,	1091,	1093,	1211,
	1618,	2583,	3063,	3140		
CHIPPEWA STAGE (SA: lake stages) .....	278,	390,	898,	1211,	1862,	1863,
	2556,	2558,	2600,	2714,		

CHLORINATED HYDROCARBONS  
(S: organics)

CHROMIUM .....	57,	58,	132,	345,	346,	407,
	408,	443,	526,	528,	624,	728,
	803,	824,	883,	891,	892,	933,
	983,	1029,	1053,	1055,	1085,	1136,
	1253,	1290,	1292,	1324,	1354,	1476,
	1489,	1526,	1557,	1558,	1594,	1595,
	1596,	1650,	1913,	2023,	2061,	2119,
	2140,	2228,	2244,	2254,	2255,	2265,
	2273,	2316,	2317,	2320,	2321,	2404,
	2435,	2437,	2490,	2511,	2512,	2601,
	2606,	2710,	2733,	2739,	2740,	2747,
	2818,	2883,	2903,	3157		

CIRCULATION (SA: currents) .....	13,	14,	34,	35,	36,	38,
	39,	40,	106,	127,	132,	136,
	137,	146,	148,	152,	160,	221,
	230,	232,	233,	235,	238,	239,
	240,	241,	243,	263,	264,	265,
	315,	317,	359,	404,	420,	614,
	615,	616,	617,	618,	619,	620,
	621,	622,	645,	669,	719,	737,
	741,	754,	761,	865,	872,	908,
	910,	924,	931,	940,	1024,	1069,
	1103,	1104,	1105,	1113,	1118,	1164,
	1204,	1234,	1235,	1254,	1255,	1376,
	1386,	1405,	1406,	1412,	1414,	1427,
	1442,	1467,	1468,	1483,	1519,	1582,
	1585,	1604,	1607,	1609,	1637,	1638,
	1639,	1640,	1648,	1663,	1670,	1684,
	1689,	1692,	1694,	1724,	1725,	1728,
	1759,	1767,	1768,	1769,	1780,	1781,
	1786,	1795,	1824,	1837,	1844,	1854,
	1855,	1875,	1880,	1883,	1888,	1889,
	1890,	1891,	1892,	1894,	1897,	1899,
	1931,	1933,	1988,	2011,	2013,	2014,
	2015,	2018,	2041,	2042,	2069,	2118,
	2123,	2125,	2126,	2130,	2133,	2144,
	2160,	2164,	2169,	2197,	2216,	2221,
	2242,	2248,	2259,	2290,	2291,	2317,
	2345,	2350,	2362,	2369,	2372,	2373,
	2374,	2375,	2376,	2377,	2378,	2379,
	2380,	2382,	2383,	2384,	2388,	2389,
	2390,	2391,	2395,	2397,	2398,	2420,
	2449,	2454,	2455,	2458,	2460,	2466,
	2479,	2488,	2521,	2533,	2536,	2592,
	2640,	2641,	2642,	2644,	2648,	2649,
	2650,	2655,	2662,	2725,	2726,	2739,
	2745,	2880,	2881,	2882,	2885,	2888,
	2905,	2932,	2955,	2961,	2962,	2963,
	2964,	2965,	2970,	3001,	3026,	3052,
	3114,	3116,	3119,	3145,	3148,	3149,
	3160					

CIRCULATION_AERIAL PHOTOGRAPHY .....	865,	1406,	1891,	2013,	2014,	2650,
	3052,	3160				

CIRCULATION\_DISPERSION  
(S: dispersion\_circulation)

CIRCULATION\_HARBORS ..... 152, 924, 1118, 1405, 1406, 1519,  
1786, 2015, 2388, 2389, 2466, 2592,  
2905

CIRCULATION\_HISTORY  
(S: history\_circulation)

CIRCULATION\_LAKE BREEZE ..... 1414, 1692, 1694, 1875, 2350, 2640,  
2641, 2642, 2725, 2726, 2888

CIRCULATION\_MODEL  
(S: model\_circulation)

CIRCULATION\_REMOTE SENSING ..... 35, 420, 1412, 1648, 1670, 1689,  
1891, 2126, 2644, 2648, 2649, 2650

CIRCULATION\_RESEARCH NEEDS  
(S: research\_needs\_circulation)

CIRCULATION\_REVIEW  
(S: review\_circulation)

CIRCULATION\_SEASONAL VARIATION ..... 13, 40, 132, 238, 359, 1164,  
1204, 1234, 1235, 1254, 1405, 1412,  
1648, 1694, 1724, 1837, 1889, 1890,  
1891, 1933, 2011, 2013, 2018, 2118,  
2197, 2290, 2350, 2382, 2384, 2395,  
2397, 2655, 2739, 2888, 2963, 2965,  
3001

CIRCULATION\_SEDIMENTS ..... 106, 132, 137, 146, 152, 230,  
754, 761, 910, 1024, 1069, 1164,  
1255, 1483, 1585, 1604, 1609, 1639,  
1640, 1648, 1781, 1795, 1844, 1891,  
2069, 2118, 2169, 2259, 2488, 2533,  
2536, 2739, 2745, 2905, 2970, 3114,  
3116, 3119

CIRCULATION\_SUMMARY  
(S: summary\_circulation)

CIRCULATION\_TEMPERATURE ..... 13, 34, 36, 40, 106, 127,  
132, 136, 148, 221, 230, 232,  
233, 235, 238, 239, 240, 241,  
263, 315, 317, 614, 615, 616,  
617, 619, 622, 761, 865, 940,  
1024, 1103, 1104, 1105, 1118, 1164,  
1204, 1234, 1235, 1254, 1255, 1406,  
1412, 1442, 1467, 1582, 1609, 1637,  
1638, 1684, 1689, 1694, 1724, 1768,  
1781, 1824, 1837, 1855, 1875, 1880,  
1888, 1889, 1890, 1891, 2011, 2013,  
2014, 2015, 2018, 2133, 2216, 2290,  
2291, 2317, 2345, 2350, 2362, 2369,  
2382, 2383, 2388, 2391, 2397, 2420,  
2479, 2521, 2592, 2640, 2641, 2642,  
2643, 2644, 2648, 2649, 2650



CIRCULATION_TEMPERATURE (continued) ...	2882,	2888,	2962,	2964,	3001,	3052,
	3148,	3149,	3160			
CIRCULATION_TRANSPORT .....	13,	14,	34,	106,	243,	618,
	620,	669,	719,	761,	865,	908,
	910,	1069,	1113,	1164,	1405,	1406,
	1412,	1414,	1483,	1585,	1604,	1607,
	1609,	1637,	1639,	1640,	1648,	1689,
	1694,	1724,	1767,	1768,	1769,	1780,
	1781,	1795,	1890,	1891,	1892,	1931,
	1988,	2069,	2118,	2160,	2242,	2248,
	2259,	2290,	2383,	2395,	2466,	2488,
	2521,	2533,	2662,	2739,	2745,	3026,
	3114,	3119				
CIRCULATION_WAVES .....	34,	38,	39,	148,	240,	263,
	614,	615,	619,	621,	622,	669,
	737,	741,	761,	872,	924,	931,
	1024,	1104,	1105,	1164,	1376,	1427,
	1519,	1604,	1609,	1638,	1639,	1640,
	1663,	1670,	1780,	1781,	1786,	1837,
	1855,	1880,	1890,	1894,	2069,	2144,
	2221,	2242,	2388,	2389,	2390,	2391,
	2397,	2466,	2533,	2536,	2592,	2640,
	2655,	2745,	2880,	2881,	2885,	2962,
	2970,	3052,	3114,	3116,	3145	
CLAMS .....	42,	43,	44,	143,	147,	152,
	163,	164,	176,	184,	346,	395,
	582,	635,	746,	827,	901,	1156,
	1158,	1228,	1289,	1292,	1295,	1312,
	1483,	1485,	1527,	1566,	1711,	1796,
	1905,	1906,	1907,	1909,	1962,	1968,
	1969,	1972,	1973,	1975,	2161,	2165,
	2166,	2170,	2278,	2280,	2403,	2416,
	3038					
CLAY .....	10,	18,	135,	139,	151,	183,
	192,	193,	247,	249,	251,	257,
	270,	281,	313,	331,	407,	408,
	410,	411,	416,	438,	446,	480,
	481,	498,	515,	516,	594,	600,
	728,	755,	757,	792,	794,	806,
	818,	827,	832,	890,	920,	1009,
	1053,	1054,	1055,	1056,	1082,	1089,
	1093,	1094,	1119,	1167,	1208,	1212,
	1215,	1252,	1265,	1301,	1441,	1470,
	1483,	1485,	1490,	1545,	1552,	1593,
	1630,	1645,	1647,	1648,	1649,	1650,
	1652,	1734,	1787,	1795,	1800,	1848,
	1852,	1853,	1862,	1863,	1864,	1865,
	2022,	2023,	2025,	2118,	2169,	2173,
	2228,	2230,	2271,	2321,	2322,	2323,
	2333,	2432,	2442,	2498,	2499,	2511,
	2512,	2526,	2536,	2538,	2556,	2559,
	2560,	2595,	2596,	2602,	2674,	2711,
	2714,	2731,	2886,	2919,	2976,	2994,
	2996,	3019,	3034,	3045,	3050,	3074,
	3119,	3140				

CLIMATE (SA: history_climate) .....	4,	22,	23,	24,	30,	45,
	84,	105,	113,	114,	115,	116,
	117,	118,	121,	123,	124,	125,
	128,	138,	170,	186,	187,	201,
	212,	246,	247,	273,	307,	309,
	324,	325,	326,	327,	358,	360,
	369,	373,	396,	435,	447,	451,
	453,	455,	456,	457,	458,	459,
	460,	462,	463,	464,	535,	536,
	537,	538,	539,	540,	610,	651,
	682,	699,	710,	712,	719,	761,
	767,	805,	813,	876,	913,	919,
	921,	935,	958,	959,	964,	1024,
	1032,	1062,	1085,	1102,	1106,	1107,
	1122,	1137,	1139,	1183,	1186,	1187,
	1204,	1233,	1264,	1303,	1335,	1342,
	1343,	1344,	1359,	1435,	1436,	1437,
	1442,	1452,	1454,	1482,	1492,	1493,
	1545,	1546,	1549,	1601,	1614,	1621,
	1687,	1689,	1716,	1729,	1742,	1748,
	1824,	1843,	1859,	1875,	1876,	1914,
	1932,	1934,	1944,	2019,	2033,	2037,
	2040,	2087,	2089,	2110,	2121,	2130,
	2175,	2176,	2196,	2202,	2205,	2206,
	2207,	2209,	2212,	2283,	2293,	2294,
	2347,	2350,	2359,	2360,	2361,	2370,
	2446,	2447,	2448,	2469,	2531,	2532,
	2565,	2570,	2599,	2631,	2636,	2637,
	2640,	2641,	2642,	2707,	2724,	2741,
	2742,	2773,	2797,	2878,	2928,	2929,
	2938,	2944,	2948,	2958,	2967,	3005,
	3019,	3054,	3055,	3062,	3141,	3142

CLIMATE_LAKE LEVELS .....	23,	30,	246,	273,	307,	360,
	373,	435,	458,	459,	537,	538,
	540,	610,	710,	712,	761,	805,
	913,	919,	921,	1024,	1032,	1085,
	1122,	1204,	1264,	1335,	1342,	1343,
	1344,	1359,	1482,	1545,	1546,	1549,
	1621,	1716,	1729,	1742,	1824,	1932,
	2033,	2130,	2175,	2176,	2205,	2206,
	2207,	2360,	2361,	2469,	2565,	2570,
	2928,	2929,	2938			

COASTAL_MANAGEMENT .....	9,	30,	47,	48,	50,	63,
	69,	71,	72,	76,	80,	96,
	97,	98,	99,	100,	102,	103,
	248,	267,	271,	272,	273,	282,
	322,	323,	328,	329,	337,	338,
	339,	385,	402,	421,	425,	429,
	434,	465,	476,	482,	487,	488,
	501,	509,	511,	512,	555,	560,
	561,	565,	567,	611,	630,	639,
	640,	641,	642,	659,	662,	681,
	697,	739,	754,	852,	887,	890,
	923,	982,	1003,	1017,	1018,	1019,
	1030,	1031,	1034,	1035,	1038,	1043,
	1063,	1064,	1065,	1070,	1071,	1073,
	1086,	1087,	1098,	1099,	1128,	1159,
	1166,	1167,	1168,	1169,	1170,	1171,

COASTAL MANAGEMENT (continued) .....	1260,	1261,	1262,	1265,	1266,	1267,
	1268,	1270,	1271,	1272,	1275,	1276,
	1279,	1280,	1284,	1285,	1293,	1294,
	1296,	1297,	1298,	1301,	1309,	1310,
	1311,	1356,	1359,	1365,	1373,	1378,
	1379,	1380,	1381,	1382,	1383,	1398,
	1426,	1427,	1428,	1452,	1469,	1470,
	1480,	1499,	1500,	1521,	1523,	1524,
	1525,	1528,	1546,	1553,	1556,	1574,
	1578,	1579,	1678,	1681,	1735,	1736,
	1775,	1781,	1809,	1810,	1812,	1816,
	1819,	1821,	1827,	1828,	1829,	1833,
	1838,	1842,	1847,	1848,	1850,	1872,
	1892,	1977,	1978,	1984,	1987,	2026,
	2027,	2048,	2051,	2052,	2070,	2090,
	2105,	2135,	2148,	2174,	2181,	2182,
	2214,	2231,	2240,	2310,	2327,	2334,
	2405,	2440,	2441,	2452,	2489,	2589,
	2605,	2606,	2607,	2633,	2692,	2694,
	2695,	2697,	2749,	2750,	2754,	2755,
	2756,	2757,	2758,	2759,	2760,	2762,
	2765,	2767,	2768,	2769,	2770,	2771,
	2772,	2773,	2775,	2781,	2786,	2789,
	2793,	2794,	2803,	2804,	2806,	2807,
	2808,	2809,	2810,	2811,	2813,	2816,
	2817,	2824,	2827,	2831,	2832,	2833,
	2834,	2835,	2836,	2838,	2840,	2841,
	2842,	2854,	2855,	2856,	2857,	2858,
	2859,	2861,	2863,	2864,	2865,	2866,
	2867,	2868,	2879,	2925,	2926,	2927,
	2934,	2936,	2941,	2949,	2981a,	3032,
	3033,	3042,	3043,	3049,	3085,	3091,
	3093,	3094,	3096,	3113,	3114,	3115,
	3116,	3117,	3118,	3121,	3122,	3124,
	3125,	3129,	3137,	3138,	3139,	3154,
	3161					

COASTAL\_MAPPING (S: mapping\_coastal)

COASTAL_STRUCTURES .....	9,	30,	62,	76,	98,	99,
(SA: specific types of structures)	103,	129,	245,	248,	249,	252,
	254,	268,	269,	282,	322,	328,
	329,	331,	333,	334,	335,	336,
	337,	338,	339,	342,	343,	368,
	421,	434,	476,	487,	488,	501,
	509,	511,	512,	527,	556,	558,
	559,	560,	561,	565,	567,	612,
	631,	639,	640,	678,	681,	700,
	739,	740,	741,	754,	805,	808,
	887,	890,	918,	920,	923,	1003,
	1019,	1043,	1063,	1064,	1065,	1070,
	1071,	1087,	1088,	1098,	1099,	1159,
	1259,	1266,	1270,	1271,	1272,	1274,
	1275,	1276,	1296,	1297,	1298,	1300,
	1301,	1364,	1365,	1369,	1373,	1378,
	1379,	1381,	1382,	1383,	1385,	1398,
	1427,	1428,	1480,	1499,	1500,	1523,
	1524,	1525,	1528,	1543,	1566,	1578,
	1579,	1735,	1736,	1770,	1775,	1781,
	1816,	1819,	1821,	1827,	1828,	1833,



COASTAL STRUCTURES (continued) .....	1842,	1847,	1848,	1849,	1850,	1872,
	1915,	1934,	1987,	2021,	2022,	2056,
	2070,	2090,	2103,	2105,	2129,	2159,
	2174,	2182,	2240,	2285,	2389,	2440,
	2441,	2469,	2483,	2489,	2537,	2589,
	2592,	2633,	2635,	2691,	2692,	2694,
	2695,	2696,	2749,	2750,	2754,	2757,
	2758,	2760,	2765,	2766,	2768,	2769,
	2770,	2771,	2772,	2773,	2775,	2779,
	2793,	2794,	2795,	2800,	2803,	2804,
	2806,	2807,	2809,	2810,	2813,	2814,
	2816,	2820,	2822,	2823,	2824,	2827,
	2831,	2833,	2838,	2840,	2841,	2844,
	2845,	2846,	2925,	2926,	2927,	2936,
	2949,	2981a,	2981b,	3008,	3027,	3030,
	3032,	3042,	3043,	3049,	3096,	3114,
	3116,	3117,	3118,	3122,	3129,	3133,
	3134,	3136,	3137,	3138,	3146,	3154

COBALT .....	312,	417,	526,	528,	624,	791,
	803,	891,	892,	933,	1055,	1136,
	1253,	1594,	1596,	1650,	1865,	1966,
	1994,	2061,	2244,	2269,	2317,	2319,
	2320,	2321,	2511,	2512,	2516,	2739,
	2740					

CONNECTING CHANNELS .....	88,	108,	109,	110,	111,	120,
(SA: waterways)	123,	220,	226,	273,	280,	297,
	373,	379,	382,	433,	479,	591,
	644,	715,	716,	923,	941,	993,
	1013,	1015,	1020,	1121,	1122,	1124,
	1154,	1182,	1185,	1204,	1266,	1335,
	1343,	1344,	1358,	1359,	1462,	1621,
	1655,	1673,	1678,	1679,	1680,	1681,
	1813,	1822,	1919,	1948,	1995,	2007,
	2033,	2091,	2103,	2133,	2162,	2163,
	2190,	2191,	2192,	2197,	2198,	2199,
	2203,	2204,	2211,	2225,	2296,	2297,
	2298,	2299,	2300,	2301,	2302,	2303,
	2309,	2360,	2393,	2394,	2415,	2424,
	2425,	2474,	2508,	2540,	2619,	2686,
	2777,	2778,	2779,	2788,	2792,	2796,
	2798,	2821,	2830,	2842,	2846,	2847,
	2849,	2861,	2892,	2943,	3065,	3146,
	3156					

COPPER .....	11,	31,	57,	58,	91,	92,
	132,	178,	198,	312,	345,	346,
	407,	408,	417,	443,	460,	526,
	528,	728,	746,	791,	803,	823,
	824,	825,	838,	882,	883,	891,
	892,	933,	983,	1009,	1029,	1053,
	1054,	1055,	1068,	1136,	1253,	1264,
	1286,	1290,	1316,	1322,	1324,	1361,
	1471,	1489,	1526,	1557,	1558,	1592,
	1594,	1595,	1596,	1622,	1650,	1713,
	1714,	1806,	1807,	1864,	1865,	1913,
	1966,	2023,	2063,	2064,	2119,	2140,
	2151,	2244,	2254,	2255,	2265,	2269,
	2272,	2276,	2277,	2278,	2279,	2281,

COPPER (continued) .....	2404,	2435,	2436,	2490,	2494,	2511,
	2512,	2516,	2522,	2601,	2710,	2730,
	2733,	2739,	2740,	2747,	2818,	2883,
	3157					
CORING (S: sediment cores)						
CORIOLIS FORCE .....	106,	136,	240,	265,	317,	545,
	617,	1103,	1104,	1105,	1164,	1196,
	1254,	1376,	1392,	1438,	1467,	1468,
	1638,	1878,	1884,	1889,	1893,	1897,
	1933,	2013,	2018,	2141,	2222,	2223,
	2368,	2533,	2536,	2637,	2645,	2965
CRUSTAL MOVEMENTS .....	379,	381,	519,	588,	589,	709,
(SA: isostatic rebound)	941,	972,	973,	1058,	1188,	1335,
	1415,	1462,	1466,	1552,	1626,	1642,
	1654,	1655,	1867,	1870,	1871,	2309,
	2574,	2579,	2675,	2683,	3130	
CURRENTS .....	14,	34,	35,	36,	37,	38,
	39,	40,	78,	106,	134,	136,
	137,	145,	148,	153,	155,	160,
	167,	212,	221,	224,	228,	230,
	232,	233,	235,	237,	238,	239,
	240,	241,	243,	250,	257,	263,
	264,	265,	266,	276,	277,	303,
	317,	318,	328,	334,	383,	386,
	387,	392,	405,	406,	410,	420,
	443,	444,	446,	448,	476,	483,
	503,	556,	594,	603,	604,	605,
	615,	616,	617,	618,	619,	620,
	621,	622,	631,	645,	646,	663,
	666,	667,	668,	669,	670,	671,
	672,	673,	678,	701,	702,	737,
	747,	761,	813,	820,	835,	844,
	863,	872,	903,	904,	905,	906,
	907,	908,	909,	910,	921,	924,
	926,	927,	929,	931,	967,	984,
	997,	998,	999,	1015,	1024,	1063,
	1075,	1098,	1104,	1105,	1108,	1109,
	1113,	1118,	1119,	1141,	1142,	1164,
	1178,	1190,	1191,	1196,	1205,	1207,
	1213,	1223,	1229,	1234,	1235,	1236,
	1237,	1238,	1254,	1255,	1301,	1304,
	1314,	1365,	1375,	1376,	1377,	1378,
	1386,	1392,	1394,	1395,	1398,	1405,
	1406,	1442,	1444,	1452,	1470,	1483,
	1485,	1486,	1487,	1518,	1528,	1561,
	1562,	1582,	1583,	1585,	1595,	1604,
	1609,	1610,	1611,	1612,	1637,	1638,
	1639,	1640,	1648,	1658,	1661,	1663,
	1666,	1670,	1708,	1718,	1724,	1725,
	1738,	1759,	1766,	1768,	1775,	1780,
	1781,	1786,	1824,	1837,	1851,	1854,
	1855,	1858,	1875,	1876,	1880,	1882,
	1883,	1884,	1886,	1888,	1889,	1890,
	1892,	1894,	1895,	1897,	1900,	1933,
	1938,	1944,	1975,	1979,	2013,	2014,
	2018,	2020,	2024,	2043,	2056,	2069,

CURRENTS (continued) .....	2105,	2118,	2120,	2123,	2124,	2125,
	2126,	2128,	2129,	2136,	2162,	2163,
	2168,	2181,	2182,	2197,	2221,	2230,
	2242,	2248,	2291,	2310,	2323,	2336,
	2345,	2368,	2369,	2371,	2372,	2373,
	2374,	2375,	2376,	2377,	2378,	2379,
	2380,	2381,	2382,	2383,	2384,	2388,
	2389,	2393,	2394,	2395,	2397,	2398,
	2400,	2414,	2449,	2454,	2455,	2458,
	2460,	2466,	2467,	2468,	2491,	2513,
	2533,	2541,	2547,	2548,	2559,	2560,
	2561,	2589,	2592,	2594,	2595,	2596,
	2620,	2634,	2644,	2648,	2649,	2650,
	2690,	2691,	2692,	2696,	2713,	2722,
	2739,	2741,	2742,	2745,	2748,	2749,
	2750,	2754,	2755,	2757,	2758,	2765,
	2768,	2773,	2774,	2780,	2800,	2803,
	2806,	2807,	2814,	2880,	2881,	2882,
	2885,	2888,	2890,	2919,	2952,	2955,
	2961,	2962,	2963,	2964,	2965,	2970,
	2981a,	2983,	2994,	2996,	3015,	3017,
	3029,	3102,	3121,	3145,	3148,	3159,
	3160					

CURRENTS\_DISPERSION  
(S: dispersion\_currents)

CURRENTS_HISTORY .....	221,	405,	446,	476,	594,	603,
	605,	663,	747,	921,	926,	927,
	967,	1024,	1063,	1118,	1178,	1213,
	1223,	1301,	1377,	1718,	1824,	2105,
	2128,	2182,	2310,	2336,	2541,	2559,
	2620,	2696,	2757,	2765,	2768,	2773,
	2952,	3121				

CURRENTS\_MAPPING (S: mapping\_currents)

CURRENTS\_MODEL (S: model\_currents)

CURRENTS_REMOTE SENSING .....	35,	386,	387,	420,	1190,	1301,
	1648,	1670,	2020,	2105,	2126,	2310,
	2513,	2644,	2648,	2649,	2650	

CURRENTS\_RESEARCH NEEDS  
(S: research\_needs\_currents)

CURRENTS\_REVIEW  
(S: review\_currents)

CURRENTS_SEASONAL VARIATION .....	40,	238,	383,	443,	444,	503,
	663,	1119,	1164,	1190,	1234,	1235,
	1254,	1405,	1648,	1724,	1837,	1882,
	1886,	1889,	1890,	1933,	1944,	1975,
	2013,	2018,	2118,	2124,	2181,	2197,
	2371,	2381,	2382,	2384,	2393,	2395,
	2397,	2400,	2414,	2491,	2620,	2739,
	2888,	2963,	2965,	3017		

CURRENTS\_SUMMARY (S: summary\_currents)



CURRENTS_TRANSPORT .....	14,	34,	106,	167,	243,	318,
	328,	383,	386,	387,	406,	410,
	443,	444,	446,	556,	603,	605,
	618,	620,	663,	666,	668,	669,
	670,	671,	672,	673,	678,	761,
	835,	903,	905,	906,	907,	908,
	909,	910,	926,	927,	997,	998,
	999,	1113,	1119,	1164,	1178,	1207,
	1304,	1377,	1378,	1398,	1405,	1406,
	1452,	1483,	1485,	1486,	1487,	1562,
	1583,	1585,	1595,	1604,	1609,	1610,
	1612,	1637,	1639,	1640,	1648,	1724,
	1766,	1768,	1780,	1781,	1858,	1890,
	1892,	1895,	1938,	2024,	2056,	2069,
	2105,	2118,	2120,	2129,	2182,	2230,
	2242,	2248,	2323,	2371,	2381,	2383,
	2395,	2466,	2491,	2533,	2547,	2559,
	2589,	2634,	2692,	2739,	2745,	2755,
	2757,	2765,	2774,	2806,	2981a,	2983,
	2996,	3029,	3102,	3121		
CYCLOTELLA (SA: diatoms) .....	1051,	1194,	1491,	1560,	1570,	1718,
	1760,	2420,	2491,	2619,	2624,	2625,
	2626,	2721,	2887,	2964,	3010	
CYMBELLA (SA: dating) .....	1456,	2619				
DATING .....	81,	82,	86,	95,	104,	247,
(SA: carbon-14; SA: lead-210)	251,	260,	351,	390,	470,	489,
	491,	492,	494,	497,	523,	524,
	551,	552,	599,	600,	703,	793,
	795,	898,	899,	900,	921,	944,
	1056,	1090,	1093,	1094,	1095,	1213,
	1219,	1397,	1399,	1494,	1544,	1545,
	1546,	1547,	1548,	1549,	1551,	1552,
	1628,	1632,	1633,	1634,	1635,	1636,
	1781,	2040,	2044,	2045,	2180,	2227,
	2228,	2229,	2236,	2259,	2263,	2264,
	2266,	2267,	2268,	2270,	2271,	2330,
	2331,	2332,	2418,	2471,	2550,	2556,
	2652,	2714,	2720,	2727,	3064,	3074,
	3142,	3164,	3165			
DEPOSITION_HISTORY						
(S: history_deposition)						
DEPOSITION_INORGANICS .....	11,	57,	58,	83,	87,	93,
	95,	198,	236,	247,	312,	366,
	407,	408,	409,	411,	474,	489,
	490,	493,	495,	532,	551,	624,
	771,	782,	784,	789,	790,	793,
	794,	795,	796,	797,	798,	799,
	800,	801,	802,	804,	815,	818,
	825,	869,	885,	962,	963,	964,
	983,	1049,	1054,	1055,	1068,	1136,
	1164,	1189,	1316,	1318,	1319,	1324,
	1372,	1397,	1403,	1471,	1489,	1595,
	1596,	1598,	1639,	1650,	1667,	1668,
	1691,	1709,	1743,	1745,	1807,	1864,
	1884,	1916,	1917,	1918,	1924,	1926,

DEPOSITION_INORGANICS (continued) .....	1927,	1928,	1935,	1938,	1939,	1940,
	1941,	1942,	1943,	1988,	1991,	1992,
	2000,	2045,	2058,	2063,	2074,	2076,
	2081,	2116,	2136,	2137,	2139,	2140,
	2215,	2228,	2229,	2244,	2252,	2253,
	2258,	2261,	2262,	2264,	2265,	2266,
	2267,	2268,	2270,	2273,	2346,	2354,
	2387,	2418,	2434,	2435,	2436,	2437,
	2488,	2497,	2518,	2520,	2521,	2523,
	2703,	2708,	2727,	2730,	2732,	2930,
	2940,	2990,	2993,	2995,	3001,	3002,
	3025,	3059,	3061,	3073,	3106	

DEPOSITION_METALS .....	11,	57,	58,	83,	87,	93,
(includes trace metals)	198,	236,	247,	312,	407,	408,
	409,	411,	474,	489,	493,	495,
	532,	551,	624,	782,	784,	789,
	790,	794,	795,	796,	797,	798,
	799,	800,	802,	804,	815,	825,
	885,	962,	963,	964,	983,	1049,
	1054,	1055,	1068,	1136,	1189,	1316,
	1318,	1319,	1324,	1372,	1397,	1403,
	1471,	1489,	1595,	1596,	1598,	1650,
	1667,	1668,	1691,	1743,	1745,	1807,
	1864,	1916,	1917,	1918,	1935,	1938,
	1939,	1940,	1941,	1942,	1943,	1988,
	1991,	1992,	2000,	2045,	2058,	2063,
	2074,	2116,	2136,	2137,	2139,	2140,
	2228,	2229,	2244,	2261,	2262,	2264,
	2265,	2266,	2267,	2268,	2270,	2273,
	2346,	2418,	2434,	2435,	2436,	2437,
	2488,	2518,	2521,	2523,	2703,	2708,
	2727,	2730,	2732,	2930,	2940,	2990,
	2993,	2995,	3001,	3059,	3061,	3106

DEPOSITION\_MODEL  
(S: model\_deposition)

DEPOSITION_ORGANIC CARBON .....	247,	311,	407,	408,	411,	624,
	782,	818,	1055,	1136,	1316,	1595,
	2063,	2169,	2229,	2436,	2526	

DEPOSITION_ORGANICS .....	11,	51,	56,	57,	58,	94,
	95,	312,	624,	736,	782,	783,
	784,	789,	815,	816,	817,	869,
	888,	915,	964,	1054,	1136,	1146,
	1316,	1318,	1319,	1324,	1489,	1587,
	1588,	1596,	1639,	1640,	1710,	1803,
	1807,	1814,	1820,	1929,	1930,	1935,
	1938,	1939,	1940,	1941,	1942,	1943,
	2063,	2140,	2244,	2292,	2497,	2526,
	2527,	2659,	2701,	2703,	2705,	2708,
	2709,	2930,	3013,	3014,	3073	

DEPOSITION_RADIONUCLIDES .....	95,	236,	409,	411,	490,	551,
	771,	782,	784,	789,	790,	793,
	794,	795,	796,	797,	798,	801,
	802,	804,	983,	1136,	1324,	1397,
	1403,	1598,	1709,	1743,	1745,	1935,
	1938,	1939,	1940,	1941,	1942,	1943,

DEPOSITION_RADIONUCLIDES (continued) ...	1988,	1991,	1992,	2045,	2058,	2116,
	2136,	2137,	2139,	2140,	2244,	2252,
	2253,	2258,	2261,	2262,	2264,	2266,
	2267,	2268,	2270,	2703,	2990,	2993,
	2995,	3001,	3002,	3106		

DEPOSITION\_SEDIMENTS  
(S: sediments\_deposition)

DETRITUS .....	299,	733,	894,	953,	1453,	1753,
(SA: organic matter)	1802,	1961,	1968,	1969,	1971,	1975,
(SA: particles)	2075,	2084,	2085,	2170,	2184,	2282,
	2352,	2399,	2400,	2407,	2491,	2722,
	2723,	2959,	2988,	2990		

DEVONIAN (SA: history) .....	481,	1206,	1540,	1856,	2719
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DIAGENESIS (SA: geochemistry) .....	310,	782,	795,	1316,	1587,	1588,
(SA: sediments)	1589,	2061,	2062,	2229,	2263,	2320,
	2323,	2729,	2734,	2746		

DIATOMA (SA: diatoms) .....	1051,	1450,	1451,	1560,	2624,	3010,
	3056					

DIATOMS (SA: specific species) .....	86,	89,	90,	132,	140,	141,
	149,	150,	154,	158,	159,	203,
	211,	315,	367,	401,	469,	470,
	502,	510,	513,	576,	580,	581,
	633,	634,	635,	638,	859,	860,
	861,	864,	878,	880,	942,	967,
	980,	1029,	1119,	1133,	1193,	1194,
	1195,	1292,	1312,	1449,	1450,	1451,
	1456,	1457,	1458,	1459,	1478,	1479,
	1491,	1560,	1566,	1570,	1717,	1718,
	1719,	1720,	1728,	1760,	1782,	1824,
	1844,	1922,	1923,	2076,	2077,	2078,
	2080,	2081,	2082,	2185,	2228,	2249,
	2256,	2271,	2276,	2284,	2295,	2400,
	2401,	2403,	2406,	2407,	2408,	2409,
	2411,	2412,	2413,	2414,	2415,	2416,
	2418,	2419,	2420,	2421,	2473,	2481,
	2486,	2487,	2491,	2517,	2547,	2611,
	2615,	2616,	2617,	2618,	2619,	2620,
	2621,	2622,	2623,	2624,	2625,	2626,
	2627,	2628,	2673,	2698,	2699,	2700,
	2706,	2721,	2887,	2900,	2930,	2956,
	2957,	2958,	2964,	2980,	3010,	3056,
	3057,	3058,	3147,	3150,	3152	

DIFFUSION .....	13,	14,	95,	467,	490,	492,
	620,	865,	888,	984,	1104,	1105,
	1235,	1236,	1677,	1689,	1713,	1714,
	1766,	1883,	1885,	1895,	1931,	2008,
	2041,	2042,	2043,	2272,	2414,	2547,
	2882,	2888				

DIFFUSIVITY .....	13,	14,	106,	1234,	1236,	1638,
	1738,	2008,	2018,	2041,	2042,	2043,
	2384,	2672,	3060,	3102,	3160	



DIRECTORY .....	194,	303,	323,	1316,	1342,	1488,
	1823					
DISPERSION_CIRCULATION .....	13,	34,	106,	620,	621,	1118,
	1405,	1406,	1414,	1483,	1604,	1637,
	1694,	1767,	1768,	1769,	1844,	1891,
	2041,	2042,	2369,	2384,	2466,	2888,
	2965,	3160				
DISPERSION_CURRENTS .....	34,	106,	237,	620,	621,	1118,
	1119,	1191,	1236,	1377,	1405,	1406,
	1483,	1486,	1604,	1637,	1708,	1768,
	1895,	2043,	2369,	2381,	2384,	2466,
	2467,	2547,	2548,	2888,	2965,	3102,
	3160					
DISPERSION_INORGANICS .....	13,	85,	491,	722,	728,	1119,
	1405,	1406,	1691,	1767,	1769,	1844,
	1895,	2063,	2064,	2466,	2467,	2518,
	2547,	2993				
DISPERSION_MODEL (S: model_dispersion)						
DISPERSION_ORGANICS .....	85,	1118,	1767,	1895,	2063,	2547
DISPERSION_RADIONUCLIDES .....	85,	491,	1767,	1769,	2993	
DISPERSION_SEDIMENTS .....	106,	491,	728,	837,	1119,	1377,
	1483,	1484,	1486,	1604,	1708,	1844,
	1891,	1895,	2381,	2547,	2993	
DISSOLVED OXYGEN (SA: oxygen) .....	131,	132,	152,	155,	159,	188,
	204,	216,	219,	224,	226,	227,
	228,	259,	346,	405,	468,	469,
	593,	624,	635,	770,	944,	1024,
	1029,	1051,	1101,	1115,	1117,	1228,
	1229,	1255,	1286,	1289,	1292,	1308,
	1312,	1354,	1394,	1442,	1491,	1557,
	1707,	1721,	1728,	1734,	1738,	1844,
	2157,	2181,	2254,	2255,	2272,	2317,
	2353,	2403,	2404,	2416,	2490,	2547,
	2600,	2601,	2606,	2729,	2734,	2739,
	2752,	2761,	2763,	2764,	2780,	2818,
	2883,	2889,	2890,	2896,	2905,	2909,
	2956,	2957,	2977,	3089,	3090,	3159
DIVERSION .....	5,	6,	7,	79,	107,	168,
(SA: environmental_impact_diversion)	195,	207,	214,	223,	273,	274,
(SA: history_diversion)	303,	307,	364,	365,	373,	376,
	424,	432,	506,	539,	553,	566,
	578,	587,	596,	643,	644,	691,
	692,	693,	695,	705,	762,	763,
	828,	868,	881,	884,	913,	922,
	923,	939,	969,	1000,	1020,	1027,
	1030,	1040,	1042,	1052,	1122,	1124,
	1185,	1202,	1204,	1264,	1266,	1269,
	1273,	1277,	1278,	1325,	1326,	1327,
	1328,	1329,	1330,	1335,	1336,	1338,
	1340,	1341,	1356,	1358,	1359,	1417,

DIVERSION (continued) .....	1461,	1462,	1463,	1475,	1482,	1517,
	1520,	1568,	1569,	1586,	1672,	1673,
	1706,	1707,	1716,	1721,	1722,	1726,
	1727,	1751,	1757,	1763,	1776,	1790,
	1815,	1861,	1960,	2090,	2093,	2127,
	2171,	2191,	2198,	2205,	2211,	2238,
	2277,	2364,	2365,	2405,	2428,	2444,
	2539,	2551,	2593,	2597,	2663,	2718,
	2761,	2763,	2764,	2796,	2829,	2837,
	2842,	2847,	2849,	2862,	2869,	2871,
	2873,	2890,	2913,	2949,	2966,	2984,
	3031,	3033,	3081			
DOLOMITE .....	255,	256,	319,	391,	416,	481,
	1055,	1440,	1553,	1652,	1669,	2173,
	2236,	2321,	2325,	2355,	2509,	2510,
	2538,	2711,	2731,	2973		
DOWNWELLING .....	148,	1582,	1894,	1900,	2368,	2383
DRAINAGE (SA: runoff) .....	13,	168,	231,	259,	305,	349,
(SA: lake outlets)	351,	352,	353,	359,	379,	381,
	382,	439,	518,	519,	522,	523,
	587,	683,	688,	694,	705,	714,
	757,	884,	889,	900,	921,	936,
	982,	987,	995,	1010,	1012,	1016,
	1020,	1024,	1090,	1091,	1093,	1094,
	1095,	1136,	1160,	1211,	1213,	1214,
	1217,	1218,	1306,	1307,	1331,	1337,
	1338,	1433,	1463,	1520,	1546,	1550,
	1552,	1617,	1618,	1620,	1621,	1622,
	1623,	1624,	1625,	1627,	1821,	1910,
	1911,	1960,	1997,	2001,	2002,	2003,
	2091,	2102,	2311,	2502,	2515,	2571,
	2575,	2577,	2583,	2584,	2598,	2681,
	2682,	2720,	2735,	2947,	2969,	3005,
	3006,	3012,	3046,	3063,	3072,	3095,
	3100,	3111,	3140,	3163		
DRAINAGE BASIN (SA: watershed) .....	11,	88,	330,	380,	437,	475,
	590,	964,	1161,	1163,	1204,	1357,
	1415,	1420,	1748,	1783,	1784,	1921,
	2101,	2113,	2114,	2115,	2175,	2176,
	2273,	2508,	2602,	2909,	2915,	2940,
	2943,	2944,	3019			
DREDGING .....	67,	70,	75,	106,	188,	210,
(SA: environmental impact_dredging)	220,	259,	345,	346,	382,	435,
	482,	512,	626,	685,	763,	770,
	869,	912,	913,	944,	945,	1013,
	1020,	1029,	1042,	1097,	1116,	1149,
	1192,	1275,	1289,	1292,	1304,	1310,
	1316,	1320,	1321,	1324,	1332,	1335,
	1336,	1340,	1341,	1348,	1355,	1361,
	1365,	1366,	1379,	1391,	1489,	1507,
	1520,	1529,	1557,	1558,	1580,	1581,
	1585,	1708,	1716,	1758,	1822,	1839,
	1848,	1913,	2088,	2177,	2183,	2203,
	2224,	2225,	2242,	2310,	2405,	2451,

DREDGING (continued) .....	2502,	2547,	2704,	2747,	2751,	2752,
	2753,	2779,	2780,	2803,	2806,	2807,
	2812,	2818,	2821,	2825,	2826,	2846,
	2879,	2886,	2889,	2890,	2895,	2905,
	3082,	3159				

EH (S: redox)

ENVIRONMENTAL IMPACT_DIVERSION .....	644,	762,	939,	1359,	1448,	1672,
(SA: diversion)	1673,	1727,	1815,	2444,	2597,	2764

ENVIRONMENTAL IMPACT_DREDGING .....	210,	435,	512,	1192,	1321,	1580,
(SA: dredging)	1585,	1848,	2704,	2747,	2780,	2812,
	2818,	2826,	2846,	2879,	2905,	3082

ENVIRONMENTAL IMPACT_NAVIGATION .....	433,	435,	644,	649,	686,	1023,
(SA: navigation; SA: shipping)	1448,	1672,	2007,	2764,	2777,	2778,
	2818,	2830,	2846,	2879,	2892	

EPILIMNION (SA: stratification) .....	230,	616				
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EQUALITY FORMATION .....	1055,	1651,	1653			
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EROSION .....	9,	30,	47,	48,	61,	63,
(SA: beaches_erosion)	71,	76,	77,	80,	91,	96,
(SA: bluffs_erosion)	97,	98,	99,	100,	101,	102,
(SA: history_erosion)	103,	129,	163,	167,	180,	181,
(SA: lake levels_erosion)	183,	190,	191,	192,	193,	244,
(SA: model_erosion)	245,	246,	248,	249,	250,	252,
(SA: shoreline_erosion)	253,	254,	268,	269,	272,	273,
	282,	303,	322,	328,	331,	332,
	333,	334,	335,	336,	337,	338,
	339,	340,	341,	342,	344,	351,
	368,	381,	386,	387,	388,	389,
	402,	421,	425,	429,	430,	434,
	436,	437,	438,	465,	476,	484,
	486,	487,	488,	498,	501,	507,
	508,	510,	511,	516,	527,	551,
	554,	555,	556,	557,	558,	559,
	560,	561,	563,	565,	567,	603,
	605,	611,	623,	624,	629,	630,
	631,	639,	640,	644,	649,	655,
	656,	658,	659,	660,	661,	662,
	663,	664,	665,	666,	667,	670,
	671,	672,	673,	674,	675,	676,
	677,	678,	679,	680,	681,	693,
	697,	700,	705,	718,	728,	739,
	740,	741,	748,	752,	754,	755,
	756,	757,	760,	761,	771,	772,
	794,	805,	806,	807,	809,	810,
	811,	812,	818,	843,	844,	848,
	869,	870,	883,	886,	887,	890,
	895,	903,	905,	906,	907,	909,
	916,	917,	918,	920,	921,	979,
	982,	987,	996,	1003,	1006,	1008,
	1013,	1015,	1017,	1019,	1020,	1023,
	1025,	1029,	1030,	1031,	1035,	1037,
	1038,	1039,	1042,	1043,	1053,	1060,
	1063,	1064,	1065,	1070,	1076,	1077,
	1078,	1079,	1080,	1081,	1082,	1083,



EROSION (continued) .....	1084,	1086,	1087,	1088,	1098,	1099,
	1100,	1119,	1125,	1126,	1130,	1149,
	1159,	1166,	1167,	1176,	1178,	1182,
	1185,	1207,	1215,	1218,	1255,	1256,
	1257,	1259,	1260,	1261,	1264,	1265,
	1266,	1268,	1270,	1271,	1272,	1274,
	1275,	1276,	1279,	1280,	1285,	1286,
	1296,	1297,	1298,	1300,	1301,	1302,
	1303,	1305,	1311,	1316,	1321,	1322,
	1332,	1336,	1339,	1345,	1346,	1347,
	1348,	1350,	1351,	1352,	1353,	1354,
	1355,	1357,	1364,	1365,	1369,	1374,
	1378,	1379,	1396,	1398,	1424,	1425,
	1426,	1427,	1428,	1448,	1452,	1469,
	1470,	1477,	1483,	1484,	1485,	1486,
	1487,	1489,	1499,	1500,	1511,	1513,
	1521,	1528,	1530,	1533,	1542,	1543,
	1548,	1549,	1556,	1574,	1578,	1579,
	1584,	1618,	1628,	1645,	1648,	1676,
	1712,	1730,	1735,	1736,	1750,	1770,
	1775,	1781,	1809,	1810,	1813,	1814,
	1816,	1819,	1821,	1827,	1828,	1829,
	1830,	1833,	1834,	1842,	1847,	1850,
	1858,	1916,	1948,	1977,	1978,	1980,
	1984,	1986,	1987,	2021,	2022,	2023,
	2024,	2029,	2037,	2048,	2050,	2051,
	2052,	2056,	2070,	2105,	2106,	2107,
	2108,	2118,	2119,	2120,	2127,	2129,
	2130,	2131,	2133,	2148,	2173,	2174,
	2175,	2176,	2182,	2187,	2214,	2228,
	2229,	2235,	2236,	2240,	2270,	2288,
	2323,	2327,	2328,	2334,	2335,	2336,
	2355,	2392,	2404,	2405,	2437,	2440,
	2441,	2452,	2469,	2475,	2476,	2478,
	2483,	2485,	2489,	2490,	2491,	2499,
	2501,	2538,	2547,	2553,	2559,	2565,
	2568,	2573,	2589,	2594,	2595,	2608,
	2609,	2610,	2633,	2635,	2653,	2654,
	2670,	2671,	2691,	2692,	2693,	2694,
	2695,	2696,	2697,	2710,	2714,	2715,
	2716,	2719,	2720,	2722,	2730,	2754,
	2755,	2756,	2757,	2758,	2759,	2760,
	2762,	2764,	2765,	2766,	2767,	2768,
	2769,	2771,	2772,	2773,	2774,	2775,
	2781,	2786,	2793,	2794,	2795,	2797,
	2800,	2801,	2802,	2804,	2806,	2808,
	2809,	2810,	2813,	2814,	2816,	2817,
	2819,	2820,	2822,	2823,	2824,	2827,
	2831,	2833,	2838,	2839,	2840,	2841,
	2843,	2845,	2853,	2870,	2879,	2897,
	2905,	2917,	2926,	2927,	2936,	2938,
	2939,	2941,	2942,	2949,	2950,	2951,
	2952,	2968,	2969,	2970,	2981b,	2983,
	3016,	3019,	3022,	3027,	3030,	3032,
	3034,	3049,	3069,	3070,	3085,	3087,
	3088,	3093,	3094,	3096,	3106,	3112,
	3113,	3114,	3116,	3117,	3118,	3119,
	3120,	3121,	3122,	3123,	3124,	3125,
	3126,	3127,	3128,	3129,	3146,	3154,
	3165					

ESTUARY (S: wetlands)

EUROPIUM .....	791,	803,	1136,	2023,	2061,	2269,
	2740					
EVAPORATION (SA: water budget) .....	2,	6,	13,	14,	23,	212,
	223,	273,	274,	287,	330,	369,
	373,	376,	392,	404,	455,	464,
	539,	606,	607,	688,	690,	694,
	696,	705,	710,	711,	712,	713,
	921,	928,	941,	964,	965,	1020,
	1024,	1052,	1104,	1105,	1123,	1124,
	1153,	1170,	1171,	1172,	1185,	1204,
	1335,	1336,	1340,	1393,	1520,	1784,
	1792,	1793,	1794,	1836,	2050,	2100,
	2115,	2121,	2158,	2162,	2163,	2171,
	2191,	2197,	2198,	2207,	2209,	2211,
	2217,	2218,	2549,	2630,	2783,	2944,
	3019,	3100,	3101,	3156		
FECAL PELLETS .....	86,	581,	878,	879,	880,	1133,
	1746,	2990				
FELDSPAR .....	1056,	1119,	2230,	2511,	2536,	2538
FERROMANAGANESE NODULES .....	415,	417,	418,	791,	803,	1068,
	1189,	1372,	1864,	1865,	1866,	2000,
	2314,	2318,	2319,	2320,	2533,	2536,
	2558,	2740				
FIELD EQUIPMENT .....	37,	38,	66,	105,	206,	266,
	276,	277,	293,	319,	479,	525,
	758,	894,	1222,	1223,	1611,	1695,
	1973,	1974,	2004,	2023,	2071,	2138,
	2166,	2168,	2234,	2383,	2384,	2462,
	2504,	2553,	2558,	2992,	2996,	2997,
	3000,	3059,	3061			
FLOODING .....	74,	168,	272,	273,	369,	398,
	460,	487,	488,	506,	509,	523,
	627,	632,	762,	870,	1007,	1016,
	1019,	1036,	1037,	1042,	1043,	1077,
	1079,	1252,	1256,	1302,	1303,	1332,
	1410,	1411,	1427,	1428,	1448,	1489,
	1499,	1571,	1573,	1575,	1681,	1762,
	1781,	1818,	1828,	1895,	2236,	2352,
	2572,	2597,	2635,	2761,	2763,	2764,
	2770,	2776,	2793,	2795,	2831,	2839,
	2850,	2872,	2879,	2911,	2968,	2969,
	3019,	3027,	3094,	3097,	3099,	3111
FLOW_GROUNDWATER .....	53,	87,	320,	330,	376,	391,
	478,	481,	485,	534,	624,	976,
	982,	991,	1007,	1020,	1155,	1201,
	1420,	1800,	1879,	1960,	1981,	2115,
	2147,	2325,	2502,	2503,	2608,	2609,
	2685,	2686,	2687,	2711,	2911,	2969,
	2970,	3166				

FLOW_MODEL .....	53,	87,	320,	330,	376,	391,
	485,	624,	714,	715,	722,	976,
	991,	1104,	1105,	1124,	1204,	1220,
	1721,	1722,	1762,	1800,	1960,	1981,
	2028,	2191,	2197,	2203,	2325,	2502,
	2592,	2662,	3156			
FLOW_TRIBUTARIES .....	53,	189,	190,	330,	369,	370,
	376,	406,	485,	624,	714,	984,
	1007,	1016,	1020,	1200,	1201,	1220,
	1341,	1420,	1762,	2028,	2090,	2115,
	2147,	2191,	2501,	2536,	2662,	2907
FORESTS .....	81,	82,	104,	188,	258,	361,
(SA: history_forests)	399,	425,	437,	550,	552,	1011,
	1014,	1019,	1046,	1047,	1106,	1107,
	1174,	1348,	1399,	1454,	1548,	1857,
	2099,	2355,	2879,	3069,	3070,	3141
FOSSILS .....	104,	147,	163,	164,	171,	172,
	173,	174,	176,	182,	192,	193,
	278,	390,	395,	401,	437,	550,
	853,	896,	901,	935,	1093,	1094,
	1206,	1212,	1324,	1362,	1445,	1465,
	1550,	1634,	1635,	1749,	1856,	1996,
	2040,	2099,	2276,	2411,	2688,	3028,
	3063,	3069,	3070,	3165		
FRAGILARIA (SA: diatoms) .....	140,	154,	638,	860,	1051,	1312,
	1491,	1560,	1570,	1717,	1718,	1720,
	1728,	1760,	2416,	2420,	2473,	2491,
	2619,	2624,	2625,	2964,	3010,	3056
GABIONS (SA: coastal structures) .....	1099,	2794				
GALLIUM .....	407,	408,	528,	791,	803,	1136,
	2023,	2740				
GEOCHEMISTRY .....	15,	16,	17,	58,	190,	191,
(SA: inorganics; SA: metals)	198,	310,	311,	407,	408,	415,
(SA: sediments_chemistry)	416,	418,	427,	660,	766,	791,
	795,	804,	891,	912,	952,	1024,
	1053,	1054,	1055,	1189,	1253,	1261,
	1316,	1404,	1588,	1589,	1596,	1630,
	1667,	1668,	1669,	1712,	1804,	1864,
	1865,	1893,	1916,	2023,	2061,	2062,
	2119,	2229,	2236,	2259,	2263,	2264,
	2265,	2266,	2268,	2270,	2275,	2314,
	2315,	2318,	2319,	2320,	2321,	2346,
	2516,	2533,	2664,	2708,	2710,	2732,
	2751,	2753,	2989,	2998,	2999,	3000,
	3003,	3050,	3150,	3157		
GEOGRAPHY .....	129,	521,	566,	1106,	1160,	1764,
	2343,	2356,	3034,	3085		
GEOLOGY						
(S: history_geology; S: mapping_geology)						
(S: research_needs_geology; S: review_geology)						
(S: summary_geology; S: specific geological terms)						



GEOMAGNETISM (SA: magnetic data) ..... 600

GEOMORPHOLOGY ..... 9, 25, 28, 29, 37, 46,  
(SA: beaches\_geomorphology) 59, 129, 166, 181, 185, 193,  
(SA: lake levels\_geomorphology) 197, 205, 231, 245, 246, 247,  
248, 250, 252, 253, 257, 260,  
261, 268, 269, 322, 331, 332,  
333, 342, 344, 347, 348, 349,  
351, 352, 368, 384, 385, 386,  
387, 389, 421, 436, 437, 438,  
440, 441, 476, 500, 515, 516,  
517, 523, 527, 551, 556, 557,  
559, 563, 597, 601, 602, 603,  
605, 630, 639, 657, 660, 661,  
662, 664, 665, 666, 667, 668,  
670, 672, 675, 677, 678, 681,  
683, 684, 708, 742, 743, 749,  
750, 751, 754, 759, 760, 764,  
805, 806, 807, 809, 811, 812,  
826, 831, 835, 840, 841, 843,  
844, 845, 846, 847, 848, 849,  
850, 851, 852, 866, 870, 886,  
895, 903, 905, 906, 907, 909,  
917, 920, 925, 936, 960, 961,  
970, 985, 986, 989, 990, 995,  
996, 999, 1006, 1059, 1060, 1063,  
1064, 1065, 1075, 1076, 1077, 1078,  
1079, 1081, 1082, 1083, 1084, 1091,  
1092, 1094, 1098, 1099, 1120, 1130,  
1159, 1163, 1166, 1167, 1177, 1178,  
1179, 1205, 1211, 1213, 1214, 1250,  
1255, 1260, 1265, 1266, 1270, 1275,  
1280, 1365, 1384, 1425, 1426, 1434,  
1452, 1469, 1477, 1483, 1496, 1497,  
1510, 1515, 1531, 1545, 1547, 1613,  
1614, 1615, 1617, 1619, 1624, 1626,  
1627, 1671, 1676, 1730, 1750, 1775,  
1781, 1821, 1831, 1835, 1889, 1893,  
1910, 1978, 1985, 2001, 2002, 2003,  
2050, 2051, 2052, 2086, 2105, 2106,  
2107, 2108, 2172, 2173, 2174, 2175,  
2187, 2214, 2236, 2328, 2334, 2335,  
2336, 2342, 2347, 2348, 2355, 2356,  
2358, 2392, 2396, 2440, 2441, 2469,  
2470, 2472, 2485, 2499, 2507, 2514,  
2550, 2580, 2581, 2598, 2608, 2609,  
2614, 2629, 2668, 2669, 2674, 2676,  
2691, 2694, 2714, 2719, 2745, 2766,  
2773, 2793, 2810, 2827, 2831, 2941,  
2942, 2945, 2950, 2951, 2952, 2969,  
2983, 3015, 3016, 3017, 3053, 3063,  
3072, 3088, 3104, 3106, 3107, 3116,  
3117, 3118, 3121, 3123, 3126, 3127,  
3128, 3140, 3146, 3163

GEOMORPHOLOGY\_SEASONAL VARIATION ..... 246, 269, 664, 750, 751, 759,  
1082, 1889, 2236, 2469, 2470, 3017,  
3126, 3127

GEOPHYSICS .....	52,	257,	262,	270,	276,	277,
(SA: seismic)	303,	320,	321,	391,	398,	564,
	867,	875,	1004,	1104,	1105,	1324,
	1576,	1597,	1651,	1652,	1839,	1864,
	1982,	2004,	2025,	2034,	2035,	2036,
	2038,	2039,	2236,	2250,	2259,	2268,
	2514,	2524,	2525,	2643,	2685,	2686,
	2687,	3020,	3021,	3022,	3045,	3103,
	3104,	3105,	3106,	3107,	3109,	3163
GLACIAL (SA: sediments_glacial) .....	8,	10,	26,	27,	29,	59,
	60,	61,	81,	82,	104,	129,
	171,	172,	173,	174,	175,	176,
	181,	182,	192,	197,	231,	255,
	256,	257,	260,	261,	275,	281,
	320,	347,	349,	350,	351,	352,
	353,	354,	363,	395,	437,	438,
	439,	440,	441,	446,	478,	481,
	498,	500,	515,	519,	521,	522,
	523,	524,	533,	599,	603,	605,
	624,	651,	683,	684,	745,	764,
	806,	807,	810,	819,	831,	832,
	850,	851,	853,	854,	855,	856,
	857,	889,	898,	899,	900,	901,
	921,	933,	934,	937,	968,	985,
	986,	988,	989,	990,	995,	1006,
	1029,	1056,	1058,	1059,	1060,	1063,
	1085,	1089,	1090,	1091,	1092,	1093,
	1094,	1095,	1096,	1160,	1179,	1188,
	1206,	1209,	1210,	1211,	1213,	1214,
	1215,	1216,	1217,	1218,	1265,	1299,
	1316,	1369,	1399,	1401,	1402,	1407,
	1408,	1433,	1434,	1454,	1455,	1531,
	1545,	1546,	1547,	1548,	1549,	1550,
	1552,	1554,	1555,	1614,	1615,	1616,
	1617,	1618,	1619,	1620,	1621,	1622,
	1623,	1624,	1625,	1626,	1627,	1628,
	1632,	1633,	1634,	1635,	1636,	1647,
	1649,	1650,	1652,	1703,	1704,	1749,
	1750,	1774,	1789,	1830,	1831,	1832,
	1834,	1852,	1853,	1856,	1862,	1863,
	1910,	1983,	2002,	2003,	2060,	2105,
	2130,	2173,	2175,	2176,	2180,	2188,
	2235,	2236,	2276,	2326,	2330,	2331,
	2332,	2339,	2341,	2342,	2343,	2347,
	2439,	2442,	2443,	2499,	2505,	2506,
	2536,	2538,	2541,	2550,	2573,	2574,
	2575,	2576,	2577,	2578,	2580,	2582,
	2584,	2585,	2598,	2652,	2677,	2678,
	2679,	2680,	2681,	2682,	2719,	2720,
	2735,	2773,	2945,	2946,	2947,	2950,
	2952,	2973,	2975,	3012,	3022,	3034,
	3039,	3044,	3045,	3049,	3063,	3064,
	3069,	3070,	3071,	3072,	3074,	3119,
	3140,	3141,	3142,	3162,	3164,	3165
GLENWOOD STAGE (SA: lake stages) .....	129,	182,	349,	351,	353,	354,
	850,	851,	853,	900,	1091,	1211,
	1618,	1623,	1635,	1832,	2332,	3140

GOETHITE .....	968					
GOLD .....	803,	1622,	1865			
GRAIN SIZE_BEACHES (S: beaches_grain size)						
GRAIN SIZE_PARTICLES .....	19,	91,	92,	178,	189,	302,
	778,	910,	975,	981,	1131,	1133,
	1134,	1245,	1476,	1503,	1713,	1714,
	1753,	1804,	2118,	2228,	2229,	2492,
	2493,	2496,	2518,	2533,	2752,	2959,
	2994					
GRAIN SIZE_SAND .....	135,	247,	249,	250,	251,	269,
	313,	345,	416,	419,	446,	594,
	601,	602,	603,	605,	653,	677,
	728,	749,	827,	835,	842,	849,
	890,	910,	911,	918,	920,	999,
	1082,	1167,	1205,	1207,	1249,	1483,
	1484,	1485,	1486,	1503,	1510,	1515,
	1645,	1650,	1676,	1800,	1835,	2022,
	2023,	2118,	2173,	2236,	2251,	2321,
	2514,	2538,	2550,	2559,	2758,	2806,
	2974,	3064,	3075			
GRAIN SIZE_SEDIMENTS .....	10,	15,	16,	91,	92,	132,
	135,	178,	249,	250,	270,	313,
	345,	346,	407,	408,	409,	410,
	416,	419,	442,	446,	526,	594,
	603,	605,	677,	728,	749,	759,
	818,	827,	835,	842,	883,	890,
	910,	911,	918,	920,	926,	927,
	948,	981,	997,	998,	999,	1053,
	1055,	1056,	1082,	1084,	1093,	1094,
	1130,	1131,	1133,	1134,	1167,	1205,
	1207,	1248,	1249,	1266,	1316,	1476,
	1483,	1484,	1485,	1486,	1490,	1503,
	1512,	1515,	1561,	1562,	1645,	1650,
	1713,	1714,	1753,	1772,	1781,	1804,
	1848,	1862,	1863,	2021,	2022,	2023,
	2061,	2118,	2173,	2185,	2227,	2228,
	2229,	2230,	2236,	2321,	2323,	2484,
	2492,	2493,	2496,	2514,	2533,	2538,
	2559,	2634,	2689,	2708,	2752,	2758,
	2806,	2909,	2939,	2974,	2981a,	2994,
	3040,	3075				
GRAVEL .....	192,	250,	257,	345,	438,	446,
	481,	515,	594,	755,	890,	913,
	1009,	1167,	1205,	1207,	1215,	1252,
	1265,	1301,	1321,	1394,	1515,	1553,
	1622,	1630,	1635,	1647,	1716,	1787,
	1799,	1852,	1853,	1982,	2025,	2173,
	2365,	2538,	2559,	2580,	2886,	2981b,
	3020,	3021,	3034,	3053		
GREENHOUSE EFFECT .....	435,	535,	538,	539,	610,	767,
	1729,	2205,	2360,	2361,	2928,	2929



GROINS (SA: coastal structures) .....	30,	62,	98,	99,	245,	249,
	252,	254,	269,	282,	328,	331,
	333,	334,	335,	336,	337,	338,
	342,	343,	476,	487,	501,	558,
	678,	739,	741,	805,	890,	918,
	1003,	1071,	1098,	1099,	1266,	1272,
	1274,	1276,	1296,	1301,	1365,	1369,
	1373,	1578,	1579,	1736,	1775,	1816,
	1828,	2021,	2022,	2105,	2182,	2694,
	2695,	2754,	2757,	2758,	2770,	2773,
	2775,	2793,	2794,	2795,	2806,	2810,
	2814,	2816,	2833,	2838,	2841,	2927,
	3114,	3122				
GROUNDWATER .....	7,	52,	53,	87,	93,	129,
(SA: aquifer)	247,	252,	255,	256,	259,	270,
(SA: recharge)	273,	303,	307,	319,	320,	321,
(SA: flow_groundwater)	330,	366,	376,	387,	391,	400,
(SA: hydrology_groundwater)	414,	427,	432,	477,	478,	479,
(SA: model_groundwater)	480,	481,	484,	485,	534,	553,
(SA: research_needs_groundwater)	566,	577,	624,	690,	696,	700,
	757,	809,	812,	814,	829,	836,
	881,	906,	943,	966,	976,	982,
	991,	1007,	1010,	1012,	1020,	1021,
	1024,	1025,	1028,	1029,	1032,	1036,
	1037,	1063,	1085,	1101,	1136,	1155,
	1173,	1201,	1239,	1240,	1252,	1264,
	1286,	1303,	1305,	1306,	1307,	1317,
	1318,	1324,	1335,	1336,	1352,	1418,
	1420,	1421,	1422,	1423,	1461,	1490,
	1520,	1553,	1569,	1584,	1597,	1621,
	1669,	1731,	1784,	1800,	1801,	1811,
	1813,	1814,	1846,	1864,	1879,	1960,
	1981,	1997,	2004,	2059,	2105,	2115,
	2130,	2147,	2214,	2236,	2311,	2312,
	2325,	2363,	2364,	2365,	2366,	2428,
	2429,	2430,	2437,	2469,	2490,	2497,
	2502,	2503,	2509,	2510,	2515,	2528,
	2529,	2597,	2608,	2609,	2657,	2685,
	2686,	2687,	2711,	2745,	2760,	2794,
	2879,	2902,	2906,	2909,	2911,	2966,
	2968,	2969,	2970,	2971,	2972,	2973,
	3006,	3007,	3019,	3047,	3050,	3154,
	3163,	3166				
GYPSUM .....	1009					
HAEGER TILL MEMBER .....	1092,	3022				
HAFNIUM .....	803,	1136,	2023,	2061,	2269	
HARBORS .....	67,	68,	75,	112,	147,	152,
(SA: sediments_harbors)	179,	220,	228,	245,	306,	313,
	345,	346,	482,	497,	512,	556,
	612,	732,	744,	766,	808,	869,
	891,	892,	912,	920,	924,	930,
	944,	945,	978,	1013,	1015,	1026,
	1034,	1054,	1073,	1080,	1118,	1127,
	1147,	1149,	1192,	1203,	1220,	1251,
	1253,	1260,	1274,	1275,	1289,	1323,

HARBORS (continued) .....	1361, 1366, 1378, 1379, 1391, 1404, 1405, 1406, 1507, 1519, 1523, 1557, 1558, 1563, 1594, 1732, 1733, 1758, 1786, 1791, 1822, 1839, 1841, 1847, 1848, 1849, 1850, 1872, 1895, 1913, 1934, 1995, 2015, 2021, 2022, 2023, 2177, 2183, 2252, 2255, 2304, 2313, 2388, 2389, 2404, 2431, 2466, 2504, 2537, 2546, 2547, 2592, 2604, 2605, 2606, 2607, 2658, 2684, 2693, 2696, 2704, 2710, 2746, 2747, 2749, 2750, 2751, 2752, 2753, 2765, 2767, 2768, 2779, 2780, 2784, 2791, 2797, 2798, 2803, 2807, 2811, 2815, 2818, 2826, 2832, 2842, 2846, 2849, 2851, 2852, 2853, 2855, 2856, 2857, 2859, 2863, 2864, 2865, 2866, 2867, 2868, 2879, 2886, 2887, 2890, 2895, 2899, 2903, 2905, 3013, 3014, 3034, 3066, 3082, 3092, 3129, 3132, 3133, 3134, 3135, 3136, 3137
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HAVEN MEMBER .....	832
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HEMATITE .....	968
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HISTORY (SA: glacial; SA: paleobotany)  
 (SA: paleoecology; SA: paleolimnology)  
 (SA: paleontology)

HISTORY\_ARCHAEOLOGY (S: archaeology)

HISTORY_BENTHIC_INVERTEBRATES .....	31, 41, 147, 164, 176, 221, 259, 393, 395, 405, 492, 496, 582, 746, 838, 901, 1024, 1115, 1156, 1223, 1228, 1264, 1293, 1316, 2279, 2295, 2310, 2407, 2490, 2541, 2556, 2738, 3077
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HISTORY_CIRCULATION .....	221, 1024, 1069, 1118, 1204, 1824, 2130, 2216, 2536, 3119
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HISTORY_CLIMATE .....	115, 116, 121, 124, 125, 138, 247, 307, 326, 373, 457, 463, 538, 651, 913, 919, 921, 935, 959, 964, 1024, 1085, 1204, 1264, 1454, 1482, 1545, 1546, 1549, 1614, 1621, 1716, 1748, 1824, 1859, 2130, 2175, 2176, 2207, 2212, 2347, 2707, 2773, 2928, 2929, 2958, 3141, 3142
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HISTORY_COASTAL .....	129, 304, 305, 340, 343, 476, 515, 517, 557, 559, 594, 641, 660, 806, 807, 810, 850, 851, 1006, 1018, 1060, 1063, 1112, 1118, 1159, 1167, 1178, 1211, 1221, 1265, 1276, 1293, 1301, 1310, 1369, 1434, 1521, 1532, 1543, 1545, 1546, 1547, 1548, 1552, 1628, 1678, 1679, 1680, 1822, 1872, 2057, 2105, 2126, 2128
(SA: shoreline_history)	

HISTORY_COASTAL (continued) .....	2174,	2182,	2310,	2327,	2336,	2355,
	2476,	2694,	2696,	2697,	2714,	2757,
	2765,	2768,	2773,	2793,	2879,	2950,
	2952,	3022,	3049,	3063,	3119,	3121
HISTORY_CURRENTS (S: currents_history)						
HISTORY_DEPOSITION .....	247,	594,	624,	663,	799,	831,
	853,	896,	926,	927,	964,	1054,
	1055,	1069,	1301,	1316,	1377,	1549,
	1554,	1649,	1650,	1667,	1668,	1831,
	1832,	1834,	1852,	1853,	2045,	2266,
	2292,	2442,	2550,	2659,	2689,	2714,
	2715,	2727,	2930,	2940		
HISTORY_DIVERSION .....	107,	195,	307,	373,	566,	587,
	828,	913,	1020,	1204,	1264,	1341,
	1358,	1422,	1463,	1482,	1707,	1716,
	1763,	1776,	1790,	2093,	2663,	2761,
	2763,	2847,	2966,	2984		
HISTORY_EROSION .....	61,	129,	163,	181,	183,	192,
	332,	340,	351,	381,	437,	438,
	476,	486,	498,	507,	508,	557,
	559,	603,	605,	624,	660,	663,
	806,	807,	810,	921,	1006,	1020,
	1029,	1060,	1063,	1080,	1159,	1167,
	1178,	1215,	1218,	1264,	1265,	1276,
	1301,	1316,	1369,	1521,	1543,	1548,
	1549,	1618,	1628,	1750,	1813,	1828,
	1830,	1834,	1978,	2105,	2106,	2108,
	2130,	2173,	2174,	2175,	2176,	2182,
	2235,	2236,	2327,	2336,	2355,	2476,
	2490,	2499,	2559,	2573,	2694,	2696,
	2697,	2714,	2715,	2716,	2719,	2720,
	2757,	2765,	2768,	2773,	2793,	2879,
	2950,	2952,	3022,	3034,	3049,	3069,
	3070,	3119,	3121,	3165		
HISTORY_FORESTS .....	81,	82,	104,	188,	361,	399,
	437,	550,	552,	1046,	1047,	1399,
	1454,	1548,	2099,	2355,	2879,	3069,
	3070,	3141				
HISTORY_GEOLOGY .....	8,	10,	26,	27,	29,	59,
	60,	61,	81,	82,	104,	129,
	147,	163,	164,	165,	166,	171,
	172,	173,	174,	175,	176,	181,
	182,	183,	192,	197,	200,	231,
	247,	255,	260,	261,	275,	278,
	281,	284,	307,	310,	320,	332,
	340,	343,	347,	349,	350,	351,
	352,	353,	354,	363,	379,	381,
	390,	393,	395,	401,	414,	437,
	438,	439,	440,	441,	476,	478,
	481,	486,	491,	492,	496,	498,
	500,	507,	508,	515,	517,	519,
	521,	522,	523,	524,	533,	541,
	542,	557,	559,	586,	587,	594,
	595,	599,	600,	601,	602,	603,



HISTORY_GEOLOGY (continued) .....	605,	624,	641,	651,	660,	663,
	683,	684,	723,	724,	745,	764,
	799,	806,	807,	810,	819,	828,
	831,	832,	850,	851,	853,	854,
	855,	856,	857,	866,	889,	896,
	898,	899,	900,	901,	919,	921,
	925,	926,	927,	933,	934,	935,
	937,	938,	961,	970,	985,	986,
	988,	989,	990,	995,	1006,	1018,
	1020,	1024,	1029,	1054,	1055,	1058,
	1059,	1060,	1063,	1080,	1085,	1089,
	1090,	1091,	1092,	1093,	1094,	1095,
	1096,	1159,	1160,	1167,	1175,	1178,
	1179,	1188,	1206,	1209,	1210,	1211,
	1212,	1213,	1214,	1215,	1216,	1217,
	1218,	1223,	1264,	1265,	1276,	1299,
	1301,	1316,	1369,	1377,	1399,	1401,
	1402,	1407,	1408,	1415,	1422,	1433,
	1434,	1455,	1496,	1497,	1521,	1531,
	1540,	1543,	1544,	1545,	1546,	1547,
	1548,	1549,	1550,	1551,	1552,	1554,
	1555,	1589,	1614,	1615,	1616,	1617,
	1618,	1619,	1620,	1621,	1622,	1623,
	1624,	1625,	1626,	1627,	1628,	1629,
	1632,	1633,	1634,	1635,	1636,	1647,
	1649,	1650,	1651,	1652,	1653,	1667,
	1668,	1678,	1679,	1703,	1704,	1748,
	1749,	1750,	1754,	1774,	1776,	1789,
	1813,	1824,	1828,	1830,	1831,	1832,
	1834,	1852,	1853,	1856,	1862,	1863,
	1910,	1978,	1983,	1996,	2002,	2003,
	2005,	2044,	2060,	2092,	2099,	2105,
	2106,	2108,	2122,	2130,	2173,	2174,
	2175,	2176,	2180,	2182,	2188,	2216,
	2227,	2235,	2236,	2266,	2276,	2289,
	2310,	2326,	2330,	2331,	2332,	2336,
	2339,	2341,	2342,	2343,	2355,	2429,
	2439,	2442,	2443,	2476,	2490,	2499,
	2505,	2506,	2524,	2536,	2541,	2550,
	2556,	2557,	2559,	2573,	2574,	2575,
	2576,	2577,	2578,	2579,	2580,	2582,
	2583,	2584,	2585,	2598,	2652,	2659,
	2668,	2669,	2674,	2675,	2677,	2678,
	2679,	2680,	2681,	2682,	2688,	2689,
	2694,	2696,	2697,	2714,	2715,	2716,
	2719,	2720,	2735,	2757,	2761,	2763,
	2765,	2768,	2773,	2793,	2895,	2930,
	2940,	2945,	2946,	2947,	2950,	2952,
	2975,	3012,	3022,	3034,	3039,	3044,
	3045,	3049,	3063,	3064,	3069,	3070,
	3071,	3072,	3074,	3107,	3119,	3121,
	3140,	3142,	3162,	3164,	3165	

HISTORY\_GLACIAL  
(S: glacial)

HISTORY\_LAKE LEVELS  
(S: lake levels\_history)

HISTORY_LAND USE .....	188,	307,	486,	507,	508,	514,
	543,	552,	559,	624,	828,	1018,
	1029,	1167,	1221,	1264,	1310,	1543,
	1548,	1828,	1859,	2047,	2236,	2310,
	2450,	2757,	2793,	2879		
HISTORY_PHYTOPLANKTON .....	147,	211,	221,	259,	401,	405,
	470,	746,	838,	967,	1024,	1029,
	1264,	1293,	1316,	1718,	1719,	1720,
	1824,	2276,	2295,	2310,	2407,	2411,
	2490,	2541,	2617,	2620,	2673,	2706,
	2738,	2930,	2958			
HISTORY_PRECIPITATION .....	129,	138,	208,	326,	361,	373,
	381,	382,	457,	463,	538,	624,
	688,	690,	913,	921,	964,	1020,
	1024,	1029,	1085,	1204,	1264,	1301,
	1341,	1393,	1567,	1621,	1716,	1750,
	1813,	1936,	2175,	2176,	2179,	2201,
	2207,	2212,	2429,	2550,	2659,	2707,
	2761,	2763,	2847,	2928,	2929	
HISTORY_SEDIMENTS .....	8,	10,	31,	41,	61,	129,
	147,	163,	164,	183,	259,	310,
	320,	343,	351,	390,	393,	395,
	401,	446,	470,	476,	478,	481,
	491,	492,	496,	498,	515,	524,
	559,	582,	594,	600,	603,	605,
	628,	660,	663,	723,	724,	764,
	799,	807,	831,	832,	853,	856,
	896,	913,	919,	921,	926,	927,
	933,	970,	1024,	1054,	1055,	1060,
	1063,	1069,	1080,	1089,	1092,	1093,
	1094,	1116,	1156,	1159,	1167,	1178,
	1179,	1206,	1209,	1212,	1213,	1215,
	1223,	1228,	1265,	1276,	1299,	1301,
	1316,	1369,	1377,	1399,	1407,	1408,
	1455,	1543,	1545,	1547,	1548,	1552,
	1555,	1589,	1618,	1628,	1647,	1649,
	1650,	1651,	1652,	1653,	1667,	1668,
	1679,	1716,	1774,	1813,	1828,	1830,
	1831,	1832,	1834,	1852,	1853,	1862,
	1863,	1961,	2044,	2045,	2105,	2106,
	2108,	2173,	2182,	2227,	2236,	2266,
	2276,	2310,	2327,	2336,	2411,	2476,
	2490,	2499,	2524,	2536,	2541,	2556,
	2557,	2559,	2617,	2659,	2689,	2694,
	2696,	2697,	2714,	2715,	2716,	2727,
	2757,	2765,	2768,	2773,	2895,	2950,
	2975,	3022,	3034,	3045,	3063,	3069,
	3070,	3107,	3119,	3121,	3141	
HISTORY_SHIPPING .....	188,	307,	587,	686,	874,	978,
	1264,	1563,	1629,	1824,	1919,	1978,
	1995,	2145,	2423,	2879,	3034	
HISTORY_URBAN .....	188,	200,	307,	457,	463,	486,
	507,	508,	514,	543,	566,	628,
	1543,	1776,	1790,	1813,	1919,	2047,
	2092,	2327,	2450,	2940		

HISTORY_WETLANDS .....	259,	304,	305,	307,	550,	552,
	913,	921,	1029,	1112,	1178,	1179,
	1221,	1293,	1341,	1399,	1408,	1460,
	1545,	1547,	1559,	1678,	1679,	1680,
	1716,	1813,	1828,	2236,	2355,	2879
HOLOCENE (SA: glacial; SA: history) ....	163,	310,	390,	409,	492,	523,
	551,	557,	559,	561,	600,	818,
	896,	919,	1085,	1095,	1096,	1106,
	1107,	1301,	1455,	1544,	1545,	1546,
	1547,	1548,	1549,	1550,	1587,	1628,
	1650,	2044,	2689,	2700,	2716,	2975,
	2976,	3049				
HUMIC ACID .....	310,	311,	949,	951,	1536,	1537,
	2227					
HYDRAULICS .....	518,	691,	693,	694,	923,	941,
	1005,	1015,	1020,	1087,	1088,	1330,
	1335,	1337,	1338,	1344,	1359,	1462,
	1568,	1654,	1655,	1673,	1762,	1822,
	1995,	2091,	2474,	2597,	2787,	2788,
	2790,	2791,	2792,	2825,	2847,	2871
HYDROCARBONS_SEDIMENTS .....	345,	346,	736,	769,	770,	775,
(includes mostly nonchlorinated	779,	913,	983,	1009,	1024,	1048,
hydrocarbons; for chlorinated	1049,	1050,	1146,	1286,	1289,	1292,
hydrocarbons and other organic	1295,	1324,	1391,	1400,	1404,	1507,
compounds, S: organics_sediments)	1558,	1588,	1589,	1639,	1716,	1801,
	1802,	1803,	1804,	1807,	1826,	1862,
	1863,	2023,	2046,	2244,	2266,	2498,
	2547,	2739,	2752,	2812,	2818,	2903,
	3107,	3109				
HYDRODYNAMICS (S: circulation)						
HYDROGRAPHY .....	47,	49,	223,	245,	369,	562,
(SA: bathymetry)	564,	615,	619,	733,	740,	741,
	742,	743,	744,	1130,	1199,	1219,
	1247,	1265,	1266,	1300,	1382,	1383,
	1388,	1462,	1651,	1786,	1787,	1880,
	1886,	1889,	2021,	2022,	2023,	2144,
	2150,	2162,	2163,	2164,	2182,	2223,
	2286,	2340,	2585,	2598,	3117,	3121
HYDROLOGY (general) .....	74,	130,	135,	590,	869,	884,
	1053,	1148,	1159,	1302,	1629,	1893,
	1937,	2113,	2114,	2160,	2247,	2444,
	2599,	2722,	2765,	2834,	2835,	2836,
	2910,	2912,	2930,	3048,	3081,	3087,
	3090					
HYDROLOGY_GROUNDWATER .....	7,	52,	53,	87,	255,	256,
(SA: groundwater)	259,	270,	273,	303,	307,	319,
	320,	330,	366,	376,	391,	400,
	414,	432,	477,	478,	479,	480,
	481,	484,	485,	534,	566,	577,
	624,	690,	696,	700,	757,	809,
	814,	829,	943,	966,	982,	991,
	1007,	1010,	1012,	1020,	1021,	1024,



HYDROLOGY_GROUNDWATER (continued) .....	1029,	1036,	1037,	1085,	1101,	1155,
	1173,	1201,	1239,	1240,	1252,	1286,
	1303,	1305,	1306,	1307,	1317,	1335,
	1336,	1352,	1420,	1490,	1520,	1669,
	1784,	1800,	1801,	1813,	1846,	1879,
	1960,	1981,	2115,	2311,	2312,	2325,
	2363,	2364,	2365,	2366,	2428,	2429,
	2430,	2437,	2502,	2503,	2509,	2510,
	2515,	2528,	2529,	2609,	2657,	2685,
	2687,	2711,	2794,	2879,	2902,	2906,
	2909,	2911,	2966,	2968,	2969,	2970,
	2971,	2972,	2973,	3006,	3007,	3019,
	3047,	3050,	3154,	3166		

HYDROLOGY_LAKE LEVELS .....	21,	168,	208,	223,	259,	272,
(SA: lake levels)	273,	274,	303,	307,	330,	359,
	360,	373,	376,	377,	379,	380,
	381,	382,	392,	397,	424,	432,
	435,	458,	459,	518,	523,	534,
	538,	540,	541,	542,	591,	608,
	610,	688,	690,	691,	692,	693,
	694,	696,	705,	709,	710,	712,
	713,	714,	725,	830,	910,	913,
	924,	939,	941,	1020,	1024,	1029,
	1030,	1036,	1085,	1110,	1121,	1122,
	1123,	1124,	1153,	1173,	1182,	1185,
	1200,	1204,	1255,	1266,	1330,	1331,
	1335,	1336,	1337,	1338,	1340,	1341,
	1343,	1344,	1356,	1359,	1393,	1420,
	1443,	1453,	1462,	1463,	1482,	1516,
	1520,	1567,	1568,	1654,	1655,	1673,
	1716,	1729,	1813,	1821,	1822,	1883,
	1890,	1960,	2033,	2050,	2091,	2102,
	2115,	2127,	2133,	2171,	2175,	2176,
	2181,	2190,	2191,	2193,	2194,	2198,
	2199,	2203,	2204,	2208,	2210,	2211,
	2237,	2338,	2360,	2361,	2366,	2395,
	2405,	2474,	2510,	2528,	2540,	2565,
	2630,	2761,	2763,	2782,	2787,	2788,
	2789,	2790,	2791,	2792,	2794,	2842,
	2847,	2873,	2891,	2938,	2968,	2969,
	3050,	3101				

HYDROLOGY\_MODEL (S: model\_hydrology)

HYDROLOGY_PRECIPITATION .....	2,	6,	87,	168,	199,	208,
(SA: precipitation)	273,	274,	319,	330,	359,	360,
	361,	369,	370,	371,	373,	376,
	377,	380,	381,	382,	392,	404,
	432,	455,	459,	538,	539,	540,
	606,	607,	624,	688,	690,	694,
	696,	705,	710,	712,	713,	714,
	813,	913,	941,	965,	1007,	1020,
	1024,	1029,	1085,	1104,	1105,	1124,
	1153,	1185,	1204,	1266,	1303,	1335,
	1336,	1338,	1340,	1341,	1344,	1393,
	1462,	1490,	1520,	1567,	1644,	1716,
	1784,	1792,	1793,	1794,	1813,	1822,
	1999,	2029,	2050,	2100,	2101,	2115,
	2121,	2127,	2133,	2158,	2171,	2175,

HYDROLOGY_PRECIPITATION (continued) ....	2176,	2191,	2198,	2208,	2209,	2211,
	2218,	2338,	2360,	2429,	2630,	2657,
	2761,	2763,	2783,	2847,	2911,	2944,
	2968,	2969,	3019,	3099,	3100,	3101,
	3156					

HYDROLOGY\_RUNOFF (S: runoff)

HYDROLOGY\_SUMMARY (S: summary\_hydrology)

HYDROLOGY\_TRIBUTARIES  
(S: tributaries\_hydrology)

HYDROLOGY\_WATER BUDGET  
(S: water budget)

HYDROLOGY_WATER SUPPLY .....	7,	199,	223,	255,	256,	274,
(SA: water supply)	320,	360,	400,	414,	432,	435,
	539,	577,	624,	649,	691,	705,
	814,	965,	966,	982,	1007,	1010,
	1021,	1022,	1024,	1029,	1122,	1201,
	1252,	1304,	1305,	1306,	1307,	1317,
	1335,	1343,	1481,	1571,	1572,	1784,
	1822,	1846,	1960,	2091,	2100,	2193,
	2277,	2311,	2312,	2363,	2365,	2404,
	2429,	2430,	2528,	2529,	2630,	2657,
	2890,	2907,	2966,	2971,	2972,	3019,
	3166					

HYPOLIMNION (SA: stratification) .....	468,	616,	947,	948,	1738,	2963
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ICE .....	12,	13,	14,	84,	108,	109,
(SA: mapping_ice)	110,	111,	112,	113,	115,	116,
(SA: model_ice)	117,	118,	119,	120,	121,	122,
(SA: tributaries_ice)	123,	125,	126,	127,	128,	138,
	169,	170,	174,	177,	212,	224,
	225,	269,	279,	280,	288,	289,
	291,	292,	294,	295,	296,	297,
	298,	299,	303,	316,	379,	381,
	384,	392,	428,	433,	471,	524,
	571,	572,	573,	574,	649,	651,
	655,	657,	699,	712,	713,	715,
	716,	735,	764,	808,	852,	855,
	869,	913,	959,	1015,	1020,	1024,
	1044,	1063,	1066,	1067,	1072,	1085,
	1092,	1096,	1102,	1122,	1124,	1138,
	1139,	1140,	1183,	1213,	1218,	1255,
	1334,	1335,	1338,	1341,	1363,	1485,
	1513,	1541,	1600,	1601,	1602,	1603,
	1605,	1606,	1637,	1673,	1697,	1716,
	1740,	1741,	1742,	1848,	1849,	1852,
	1890,	1891,	1934,	2007,	2009,	2016,
	2017,	2019,	2033,	2037,	2103,	2118,
	2121,	2123,	2152,	2163,	2191,	2192,
	2196,	2198,	2207,	2217,	2250,	2283,
	2285,	2293,	2294,	2296,	2297,	2298,
	2299,	2300,	2301,	2302,	2303,	2304,
	2337,	2360,	2427,	2477,	2482,	2483,
	2531,	2532,	2537,	2542,	2543,	2544,
	2625,	2648,	2677,	2681,	2684,	2724,

ICE (continued) .....	2760,	2764,	2777,	2778,	2794,	2803,
	2806,	2807,	2810,	2830,	2892,	2929,
	2946,	2962,	3065,	3132,	3133,	3134,
	3135,	3136,	3137,	3138,	3139,	3144,
	3155,	3156,	3158,	3161		
ILLITE .....	1055,	1056,	1862,	1863,	2511,	2536
INORGANIC CARBON .....	410,	416,	470,	528,	1136,	1865,
	2227,	2269,	2318,	2319,	2321,	2399,
	2536,	2728,	2909			
INORGANICS (general, no specific inorganics named) .....	6,	107,	159,	194,	216,	221,
(SA: specific inorganic elements)	367,	448,	575,	598,	685,	686,
(SA: metals or radionuclides)	768,	861,	929,	1028,	1045,	1126,
	1353,	1371,	1409,	1416,	1669,	1717,
	1782,	1811,	2132,	2147,	2216,	2643,
	2644,	2646,	2663,	2887,	2932,	3149
INORGANICS_CYCLING .....	20,	33,	86,	89,	93,	147,
	152,	405,	470,	576,	579,	580,
	581,	773,	785,	790,	792,	793,
	804,	824,	838,	879,	880,	950,
	980,	1029,	1255,	1316,	1453,	1479,
	1599,	1643,	1744,	1745,	1766,	1893,
	1935,	1938,	1939,	1940,	1941,	1942,
	1943,	1965,	1966,	1976,	1992,	2058,
	2076,	2078,	2079,	2080,	2081,	2082,
	2149,	2181,	2185,	2186,	2229,	2244,
	2263,	2269,	2271,	2272,	2274,	2275,
	2295,	2324,	2473,	2488,	2491,	2492,
	2494,	2496,	2569,	2572,	2722,	2723,
	2728,	2739,	2916,	2956,	2988,	2990,
	2991,	2993,	2995,	2998,	3001,	3002,
	3004,	3073,	3150,	3151,	3157	
INORGANICS_DEPOSITION (S: deposition_inorganics)						
INORGANICS_DISPERSION (S: dispersion_inorganics)						
INORGANICS_DISTRIBUTION .....	15,	16,	20,	86,	95,	132,
	147,	178,	198,	218,	236,	251,
	302,	315,	407,	408,	410,	415,
	492,	513,	526,	579,	581,	582,
	585,	593,	728,	790,	796,	797,
	799,	802,	864,	882,	883,	949,
	1024,	1029,	1055,	1068,	1119,	1133,
	1193,	1194,	1195,	1198,	1226,	1229,
	1312,	1324,	1403,	1441,	1449,	1479,
	1494,	1504,	1561,	1566,	1592,	1595,
	1596,	1630,	1679,	1681,	1723,	1734,
	1781,	1844,	1851,	1864,	1865,	1916,
	1923,	1924,	2000,	2023,	2031,	2046,
	2063,	2076,	2077,	2078,	2080,	2082,
	2116,	2136,	2140,	2228,	2249,	2255,
	2258,	2263,	2265,	2266,	2267,	2269,
	2270,	2271,	2284,	2295,	2321,	2333,



INORGANICS_DISTRIBUTION (continued) ...	2357,	2404,	2416,	2417,	2421,	2486,
	2488,	2491,	2494,	2495,	2496,	2511,
	2533,	2536,	2547,	2605,	2619,	2622,
	2626,	2658,	2673,	2710,	2980,	2988,
	2989,	2990,	2993,	2995,	2999,	3001,
	3079,	3152				

INORGANICS_FLUX .....	17,	57,	58,	90,	427,	467,
(SA: inorganics_cycling)	470,	495,	496,	497,	576,	771,
(SA: resuspension)	773,	784,	785,	790,	796,	800,
	802,	804,	815,	949,	954,	1164,
	1184,	1453,	1471,	1505,	1522,	1677,
	1713,	1714,	1738,	1884,	1885,	1887,
	1917,	1918,	1935,	1938,	1939,	1940,
	1941,	1942,	1943,	1964,	1976,	1992,
	1993,	2045,	2076,	2133,	2186,	2228,
	2229,	2244,	2266,	2267,	2269,	2270,
	2274,	2275,	2352,	2354,	2413,	2421,
	2435,	2437,	2491,	2495,	2496,	2520,
	2521,	2522,	2569,	2658,	2672,	2704,
	2727,	2732,	2733,	2924,	2995,	3002,
	3025,	3157				

INORGANICS_LOADING .....	11,	14,	16,	19,	31,	83,
	87,	90,	91,	92,	132,	142,
	152,	178,	189,	190,	218,	220,
	244,	259,	366,	374,	443,	470,
	484,	485,	495,	496,	510,	526,
	532,	623,	624,	706,	707,	771,
	794,	795,	801,	802,	825,	891,
	892,	913,	950,	962,	1024,	1026,
	1111,	1117,	1136,	1184,	1253,	1319,
	1324,	1349,	1350,	1352,	1354,	1355,
	1357,	1405,	1450,	1471,	1477,	1490,
	1498,	1538,	1539,	1598,	1605,	1606,
	1643,	1709,	1713,	1714,	1716,	1766,
	1806,	1807,	1813,	1858,	1859,	1895,
	1916,	1917,	1918,	1923,	1924,	1925,
	1926,	1927,	1928,	1935,	1938,	1939,
	1940,	1941,	1942,	1943,	1986,	2000,
	2028,	2029,	2030,	2061,	2062,	2065,
	2090,	2104,	2151,	2229,	2249,	2255,
	2262,	2264,	2266,	2329,	2346,	2353,
	2354,	2404,	2406,	2409,	2415,	2434,
	2435,	2436,	2437,	2438,	2471,	2487,
	2488,	2501,	2518,	2522,	2523,	2533,
	2547,	2562,	2563,	2564,	2567,	2571,
	2572,	2590,	2591,	2626,	2653,	2654,
	2664,	2672,	2673,	2702,	2703,	2704,
	2708,	2727,	2730,	2896,	2897,	2900,
	2924,	2940,	2956,	2957,	2980,	3001,
	3089,	3095				

INORGANICS\_MASS BALANCE  
(S: mass\_balance\_inorganics)

INORGANICS\_METALS (S: metals)

INORGANICS\_MODEL (S: model\_inorganics)

INORGANICS\_RADIONUCLIDES  
(S: radionuclides)

INORGANICS_SEDIMENTS .....	15,	16,	17,	18,	20,	31,
(SA: metals_sediments)	32,	57,	58,	83,	86,	87,
(SA: phosphorus_sediments)	89,	90,	91,	92,	93,	95,
(SA: radionuclides_sediments)	132,	142,	147,	152,	178,	190,
	198,	220,	222,	226,	227,	236,
	244,	258,	259,	303,	312,	345,
	346,	351,	393,	397,	407,	408,
	409,	410,	411,	416,	418,	427,
	443,	466,	467,	469,	470,	474,
	481,	484,	485,	489,	490,	491,
	492,	493,	494,	495,	496,	497,
	510,	526,	528,	532,	551,	576,
	579,	580,	582,	585,	592,	593,
	600,	623,	698,	703,	706,	707,
	728,	763,	770,	771,	773,	782,
	784,	785,	787,	788,	789,	790,
	792,	793,	794,	795,	796,	797,
	798,	799,	800,	801,	802,	803,
	804,	815,	818,	824,	833,	879,
	882,	883,	891,	892,	912,	913,
	921,	932,	933,	944,	949,	950,
	954,	955,	956,	962,	968,	983,
	1009,	1024,	1026,	1036,	1049,	1053,
	1054,	1055,	1068,	1072,	1093,	1097,
	1101,	1111,	1116,	1117,	1119,	1133,
	1136,	1164,	1165,	1184,	1189,	1192,
	1213,	1219,	1226,	1230,	1253,	1255,
	1261,	1286,	1289,	1292,	1295,	1316,
	1318,	1319,	1322,	1324,	1349,	1350,
	1352,	1354,	1355,	1357,	1361,	1397,
	1399,	1403,	1404,	1429,	1430,	1441,
	1453,	1476,	1477,	1489,	1490,	1494,
	1498,	1504,	1505,	1507,	1526,	1529,
	1536,	1538,	1539,	1552,	1557,	1558,
	1561,	1581,	1594,	1595,	1596,	1599,
	1609,	1628,	1630,	1639,	1643,	1650,
	1667,	1668,	1677,	1679,	1681,	1700,
	1709,	1713,	1714,	1716,	1723,	1734,
	1738,	1743,	1745,	1781,	1785,	1799,
	1807,	1813,	1826,	1844,	1858,	1860,
	1864,	1865,	1884,	1885,	1887,	1895,
	1902,	1913,	1917,	1918,	1935,	1938,
	1939,	1940,	1941,	1942,	1943,	1963,
	1964,	1965,	1976,	1989,	1990,	1992,
	1993,	1994,	2000,	2006,	2023,	2028,
	2029,	2030,	2031,	2040,	2044,	2045,
	2046,	2058,	2061,	2062,	2076,	2078,
	2079,	2080,	2081,	2082,	2084,	2085,
	2104,	2119,	2124,	2136,	2137,	2139,
	2140,	2151,	2178,	2181,	2185,	2186,
	2227,	2228,	2229,	2244,	2245,	2258,
	2259,	2263,	2264,	2265,	2266,	2267,
	2268,	2269,	2270,	2271,	2272,	2273,
	2274,	2275,	2314,	2315,	2316,	2318,
	2319,	2320,	2321,	2322,	2324,	2333,
	2346,	2354,	2403,	2404,	2408,	2409,
	2411,	2413,	2416,	2418,	2419,	2432,

INORGANICS_SEDIMENTS (continued) .....	2468,	2471,	2473,	2488,	2490,	2491,
	2492,	2493,	2494,	2495,	2496,	2500,
	2501,	2511,	2512,	2516,	2517,	2533,
	2536,	2546,	2547,	2558,	2563,	2564,
	2571,	2572,	2590,	2591,	2604,	2606,
	2653,	2654,	2656,	2658,	2664,	2702,
	2703,	2704,	2708,	2710,	2727,	2728,
	2729,	2732,	2734,	2739,	2740,	2747,
	2751,	2752,	2753,	2764,	2812,	2818,
	2825,	2886,	2894,	2903,	2905,	2909,
	2916,	2924,	2956,	2957,	2988,	2989,
	2990,	2991,	2993,	2995,	2999,	3002,
	3003,	3004,	3050,	3083,	3095,	3106,
	3111,	3151,	3152,	3159		

INORGANICS\_SUMMARY  
(S: summary\_inorganics)

INORGANICS_TRANSPORT .....	11,	13,	14,	15,	18,	20,
	31,	57,	86,	90,	91,	92,
	95,	220,	397,	410,	443,	467,
	470,	510,	532,	624,	706,	722,
	784,	785,	789,	795,	798,	824,
	880,	885,	975,	1029,	1113,	1119,
	1136,	1164,	1245,	1304,	1316,	1319,
	1324,	1352,	1355,	1396,	1397,	1405,
	1406,	1504,	1505,	1538,	1592,	1595,
	1596,	1607,	1609,	1639,	1691,	1698,
	1709,	1743,	1766,	1767,	1769,	1781,
	1785,	1806,	1858,	1860,	1885,	1895,
	1935,	1938,	1939,	1940,	1941,	1942,
	1943,	1988,	2000,	2028,	2029,	2030,
	2064,	2078,	2082,	2084,	2139,	2228,
	2229,	2244,	2245,	2259,	2352,	2408,
	2410,	2437,	2466,	2488,	2490,	2491,
	2501,	2518,	2521,	2523,	2533,	2547,
	2562,	2658,	2672,	2704,	2708,	2739,
	2916,	2956,	2957,	2990,	3029,	3059,
	3106,	3157				

INSTITUTIONS .....	6,	130,	220,	221,	307,	323,
	362,	405,	435,	448,	465,	596,
	611,	649,	687,	726,	765,	1008,
	1022,	1030,	1036,	1043,	1129,	1264,
	1267,	1270,	1303,	1305,	1322,	1344,
	1359,	1383,	1460,	1644,	1826,	1828,
	2131,	2157,	2159,	2565,	2600,	2840,
	2872,	2891,	2897,	2924,	2927,	2938,
	3033,	3091,	3094			

INVENTORY .....	282,	303,	323,	385,	558,	565,
	1025,	1129,	1161,	1197,	1198,	1263,
	1294,	1310,	1811,	2072,	2367,	2508,
	2793,	3085				

INVERTEBRATES  
(S: benthic\_invertebrates)

IRON .....	11,	18,	87,	89,	132,	178,
	224,	247,	251,	345,	346,	397,



IRON (continued) .....	624,	728,	773,	782,	791,	803,
	823,	882,	883,	933,	962,	968,
	983,	1009,	1024,	1049,	1068,	1072,
	1085,	1136,	1245,	1252,	1286,	1287,
	1289,	1290,	1295,	1306,	1307,	1308,
	1324,	1372,	1421,	1557,	1558,	1592,
	1594,	1595,	1596,	1713,	1714,	1806,
	1807,	1825,	1835,	1864,	1865,	1887,
	1913,	1966,	2000,	2061,	2062,	2063,
	2064,	2104,	2228,	2244,	2265,	2269,
	2273,	2311,	2314,	2316,	2317,	2318,
	2319,	2320,	2321,	2322,	2324,	2403,
	2404,	2432,	2435,	2490,	2512,	2521,
	2522,	2533,	2547,	2590,	2591,	2601,
	2657,	2711,	2733,	2739,	2740,	2747,
	2764,	2818,	2916,	2924,	2956,	2957,
	3006,	3059,	3106			
ISOSTATIC REBOUND .....	363,	395,	588,	589,	989,	990,
(SA: crustal movements)	1058,	1096,	1188,	1211,	1213,	1365,
	1546,	1549,	1550,	1552,	1620,	1628,
	1642,	1703,	1704,	1862,	1863,	1867,
	1870,	1871,	2326,	2505,	2506,	2579,
	2582,	2584,	2598,	2651,	2675,	2679,
	2680,	2828,	3064			
JETTIES (SA: coastal structures) .....	245,	328,	368,	501,	556,	612,
	1275,	1301,	1365,	1775,	1848,	1850,
	2021,	2022,	2105,	2182,	2766,	2772,
	2773,	2806,	2814,	3122		
KAOLINITE .....	416,	1056,	2511,	2538		
KIRKFIELD STAGE (SA: lake stages) .....	1862,	1863,	2682			
LAKE ALGONQUIN (SA: lake stages) .....	129,	985,	988,	989,	1211,	1217,
	1433,	1552,	1621,	1626,	2584,	2680,
	2681,	2682,	2720,	2947,	3165	
LAKE ARKONA (SA: lake stages) .....	1211,	1626,	2680			
LAKE BREEZE .....	499,	834,	1144,	1244,	1245,	1413,
	1414,	1687,	1688,	1690,	1692,	1693,
	1694,	1697,	1875,	1876,	1877,	1878,
	2053,	2054,	2055,	2350,	2523,	2638,
	2640,	2641,	2642,	2725,	2726,	2888,
	3009,	3062,	3068			
LAKE CHICAGO (SA: lake stages) .....	129,	171,	172,	173,	175,	176,
	181,	182,	197,	260,	281,	349,
	351,	352,	353,	354,	363,	550,
	559,	599,	819,	850,	851,	898,
	900,	985,	988,	1089,	1178,	1211,
	1217,	1433,	1552,	1617,	1618,	1623,
	1626,	1634,	1635,	2332,	2443,	2680,
	2720,	3063,	3165			
LAKE CHIPPEWA (SA: lake stages) .....	164,	724,	1143,	1212,	1399,	1789,
	2714,	2720,	3165			

LAKE DAWSON (SA: lake stages) .....	2680					
LAKE DULUTH (SA: lake stages) .....	1211,	1621,	2680			
LAKE EFFECT .....	4,	22,	23,	24,	45,	114,
(SA: model_lake effect)	124,	125,	186,	187,	308,	309,
(SA: precipitation_lake effect)	324,	326,	327,	447,	451,	453,
	454,	455,	456,	459,	461,	462,
	463,	464,	499,	549,	636,	637,
	682,	710,	719,	722,	834,	876,
	964,	974,	1024,	1062,	1144,	1162,
	1168,	1186,	1187,	1231,	1232,	1233,
	1243,	1244,	1264,	1435,	1436,	1437,
	1438,	1439,	1492,	1493,	1591,	1690,
	1692,	1697,	1698,	1777,	1843,	1876,
	1914,	1998,	1999,	2055,	2087,	2110,
	2111,	2202,	2207,	2243,	2257,	2283,
	2445,	2446,	2447,	2448,	2631,	2636,
	2637,	2640,	2641,	2642,	2666,	2707,
	2718,	2741,	2742,	2944,	2948,	2967,
	3009,	3054,	3055,	3062,	3068	
LAKE FOREST MEMBER .....	163					
LAKE FRONTENAC (SA: lake stages) .....	2680					
LAKE GRASSMERE (SA: lake stages) .....	1211					
LAKE HALL (SA: lake stages) .....	2680					
LAKE IROQUOIS (SA: lake stages) .....	2680,	2947				
LAKE LEVELS (general) .....	79,	88,	364,	365,	588,	589,
	689,	695,	897,	971,	1005,	1040,
	1140,	1154,	1219,	1334,	1432,	1464,
	1466,	1475,	1519,	1739,	1815,	1849,
	1869,	1911,	1945,	1946,	1953,	1955,
	1956,	1957,	1958,	2195,	2200,	2220,
	2223,	2225,	2385,	2482,	2498,	2776,
	2796,	2798,	2805,	2828,	2862,	2869,
	2871,	2874,	2875,	2937,	2943,	3097,
	3130					
LAKE LEVELS_CLIMATE						
(S: climate_lake levels)						
LAKE LEVELS_EROSION .....	30,	61,	76,	80,	129,	181,
	183,	192,	246,	248,	252,	268,
	269,	272,	273,	303,	328,	333,
	340,	351,	381,	386,	387,	402,
	434,	437,	476,	516,	557,	558,
	561,	563,	603,	605,	644,	660,
	661,	664,	665,	678,	681,	693,
	705,	740,	741,	754,	760,	761,
	805,	810,	844,	870,	921,	979,
	1003,	1008,	1015,	1020,	1029,	1030,
	1039,	1042,	1060,	1063,	1076,	1077,
	1079,	1080,	1081,	1082,	1083,	1084,
	1086,	1087,	1088,	1098,	1178,	1182,
	1225,	1232,	1255,	1264,	1265,	1266,

LAKE LEVELS_EROSION (continued) .....	1285,	1301,	1316,	1332,	1336,	1339,
	1365,	1369,	1424,	1426,	1427,	1448,
	1483,	1485,	1499,	1528,	1542,	1548,
	1549,	1584,	1628,	1730,	1750,	1770,
	1781,	1813,	1821,	1827,	1830,	1850,
	2021,	2050,	2105,	2106,	2107,	2108,
	2127,	2129,	2130,	2133,	2175,	2176,
	2182,	2187,	2235,	2328,	2334,	2336,
	2392,	2405,	2469,	2476,	2478,	2485,
	2559,	2565,	2573,	2670,	2691,	2694,
	2714,	2715,	2716,	2720,	2760,	2764,
	2766,	2775,	2781,	2794,	2806,	2809,
	2810,	2831,	2838,	2841,	2927,	2938,
	2949,	2968,	2969,	2981b,	3027,	3030,
	3049,	3096,	3114,	3116,	3119,	3120,
	3121,	3126,	3127			

LAKE LEVELS_GEOMORPHOLOGY .....	129,	181,	246,	248,	252,	268,
	269,	333,	349,	351,	386,	387,
	437,	476,	516,	523,	557,	563,
	603,	605,	660,	661,	664,	665,
	678,	681,	742,	743,	750,	751,
	754,	759,	760,	805,	844,	870,
	970,	985,	986,	990,	999,	1059,
	1060,	1063,	1076,	1077,	1079,	1081,
	1082,	1083,	1084,	1091,	1094,	1098,
	1163,	1178,	1211,	1213,	1255,	1265,
	1266,	1365,	1426,	1483,	1496,	1497,
	1545,	1547,	1617,	1730,	1750,	1781,
	1821,	1889,	2050,	2105,	2106,	2107,
	2108,	2175,	2187,	2328,	2334,	2336,
	2392,	2396,	2469,	2470,	2485,	2581,
	2674,	2691,	2694,	2714,	2745,	2766,
	2810,	2831,	2969,	3017,	3053,	3116,
	3121,	3126,	3127,	3140		

LAKE LEVELS_HISTORY .....	61,	129,	164,	175,	181,	183,
	192,	208,	259,	304,	305,	307,
	340,	349,	351,	353,	354,	363,
	373,	379,	381,	382,	390,	393,
	395,	405,	437,	439,	476,	519,
	523,	538,	541,	542,	552,	557,
	586,	587,	591,	603,	605,	660,
	688,	690,	765,	810,	828,	913,
	919,	921,	970,	985,	986,	990,
	1020,	1024,	1029,	1058,	1059,	1060,
	1063,	1080,	1085,	1090,	1091,	1093,
	1094,	1095,	1096,	1112,	1118,	1178,
	1204,	1211,	1212,	1213,	1217,	1218,
	1264,	1265,	1301,	1316,	1341,	1358,
	1369,	1377,	1393,	1399,	1408,	1422,
	1433,	1463,	1482,	1496,	1497,	1544,
	1545,	1546,	1547,	1548,	1549,	1550,
	1551,	1552,	1567,	1617,	1621,	1623,
	1628,	1654,	1678,	1679,	1680,	1705,
	1716,	1750,	1789,	1813,	1824,	1830,
	1868,	1947,	1952,	1959,	1996,	2091,
	2105,	2106,	2108,	2130,	2175,	2176,
	2182,	2192,	2201,	2207,	2227,	2235,
	2309,	2326,	2336,	2476,	2536,	2541,



LAKE LEVELS_HISTORY (continued) .....	2556,	2557,	2559,	2573,	2582,	2583,
	2674,	2679,	2681,	2682,	2694,	2714,
	2715,	2716,	2720,	2761,	2763,	2847,
	2877,	2928,	2929,	3049,	3119,	3121,
	3131,	3140				

LAKE LEVELS\_HYDROLOGY  
(S: hydrology\_lake levels)

LAKE LEVELS_MANAGEMENT .....	21,	30,	76,	80,	168,	208,
	223,	248,	259,	271,	272,	273,
	303,	328,	362,	402,	405,	434,
	476,	509,	518,	519,	552,	561,
	608,	643,	681,	691,	692,	693,
	694,	705,	754,	762,	763,	830,
	913,	922,	923,	939,	1003,	1008,
	1024,	1029,	1030,	1032,	1036,	1039,
	1041,	1042,	1052,	1063,	1071,	1086,
	1087,	1098,	1121,	1122,	1123,	1182,
	1255,	1264,	1265,	1266,	1277,	1285,
	1301,	1329,	1330,	1331,	1333,	1336,
	1337,	1338,	1340,	1341,	1344,	1356,
	1358,	1359,	1365,	1381,	1382,	1383,
	1422,	1426,	1427,	1448,	1482,	1499,
	1520,	1528,	1546,	1568,	1654,	1672,
	1673,	1678,	1681,	1705,	1716,	1751,
	1781,	1813,	1821,	1822,	1827,	1848,
	1850,	1960,	2066,	2090,	2091,	2105,
	2133,	2134,	2162,	2181,	2182,	2199,
	2203,	2204,	2205,	2206,	2208,	2309,
	2334,	2405,	2451,	2539,	2540,	2565,
	2603,	2630,	2694,	2760,	2761,	2763,
	2770,	2775,	2781,	2787,	2788,	2789,
	2790,	2791,	2792,	2794,	2806,	2809,
	2810,	2831,	2838,	2841,	2842,	2872,
	2873,	2891,	2927,	2938,	2949,	2981,
	3031,	3049,	3096,	3114,	3116,	3121

LAKE LEVELS_MODEL .....	38,	39,	168,	330,	363,	376,
	405,	538,	540,	541,	542,	625,
	643,	644,	690,	696,	705,	714,
	715,	716,	730,	805,	810,	830,
	872,	873,	904,	924,	999,	1082,
	1083,	1084,	1118,	1121,	1122,	1123,
	1124,	1135,	1141,	1142,	1173,	1182,
	1204,	1255,	1318,	1377,	1381,	1382,
	1383,	1410,	1448,	1520,	1548,	1550,
	1552,	1659,	1672,	1673,	1679,	1680,
	1681,	1781,	1783,	1848,	1883,	1889,
	1890,	1933,	1960,	2102,	2106,	2107,
	2108,	2127,	2142,	2143,	2190,	2191,
	2193,	2194,	2198,	2199,	2203,	2222,
	2286,	2328,	2360,	2456,	2457,	2458,
	2463,	2474,	2597,	2630,	2670,	2764,
	2891,	2981a,	2981b,	3017,	3120	

LAKE LEVELS_MONITORING .....	224,	303,	424,	709,	715,	725,
	1029,	1318,	1340,	1342,	1516,	1567,
	1813,	1949,	1950,	1951,	2193,	2748,
	2775,	2782,	2804,	2808,		

LAKE LEVELS\_PRECIPITATION  
 (S: precipitation\_lake levels)

LAKE LEVELS\_RESEARCH NEEDS  
 (S: research needs\_lake levels)

LAKE LEVELS\_REVIEW  
 (S: review\_lake levels)

LAKE LEVELS\_SEASONAL VARIATION ..... 23, 246, 269, 273, 274, 359,  
 360, 376, 459, 664, 690, 712,  
 713, 750, 751, 759, 913, 941,  
 1071, 1082, 1185, 1204, 1338, 1340,  
 1341, 1410, 1424, 1443, 1520, 1678,  
 1716, 1783, 1837, 1889, 1890, 1933,  
 2181, 2201, 2308, 2352, 2393, 2395,  
 2469, 2470, 2761, 2763, 3017, 3049,  
 3120, 3126, 3127

LAKE LEVELS\_SEICHE ..... 136, 196, 621, 625, 730, 858,  
 (SA: seiche) 872, 1024, 1110, 1112, 1141, 1142,  
 1204, 1213, 1241, 1336, 1340, 1341,  
 1360, 1376, 1388, 1410, 1427, 1443,  
 1462, 1520, 1663, 1750, 1827, 1837,  
 1881, 1883, 1889, 1890, 1897, 1932,  
 2050, 2142, 2143, 2171, 2222, 2352,  
 2388, 2394, 2395, 2457, 2463, 2474,  
 2536, 2806

LAKE LEVELS\_SHORELINE  
 (S: shoreline\_lake levels)

LAKE LEVELS\_SUMMARY  
 (S: summary\_lake levels)

LAKE LEVELS\_WETLANDS ..... 223, 259, 304, 305, 307, 397,  
 534, 552, 913, 921, 1028, 1029,  
 1036, 1112, 1178, 1332, 1341, 1365,  
 1367, 1399, 1408, 1410, 1411, 1443,  
 1453, 1545, 1547, 1678, 1679, 1680,  
 1681, 1716, 1813, 2090, 2147, 2181,  
 2352, 2603, 2764, 3050

LAKE LEVELS\_WIND ..... 23, 30, 38, 136, 196, 224,  
 232, 233, 246, 269, 273, 274,  
 328, 376, 386, 387, 392, 540,  
 603, 605, 678, 710, 713, 730,  
 759, 761, 805, 858, 872, 904,  
 941, 979, 1003, 1024, 1029, 1042,  
 1071, 1135, 1142, 1152, 1185, 1204,  
 1241, 1245, 1265, 1266, 1301, 1335,  
 1340, 1341, 1342, 1360, 1369, 1376,  
 1377, 1381, 1388, 1424, 1520, 1528,  
 1705, 1742, 1781, 1827, 1837, 1850,  
 1883, 1889, 1890, 1932, 1933, 2127,  
 2129, 2142, 2143, 2162, 2163, 2171,  
 2176, 2182, 2207, 2336, 2388, 2456,  
 2463, 2537, 2745, 2760, 2764, 2766,  
 2806, 2809, 2847, 2927, 2981a, 3017,  
 3114, 3116, 3119, 3121, 3127, 3135

LAKE LUNDY (SA: lake stages) .....	1211, 1626, 2680
LAKE MAUMEE (SA: lake stages) .....	1211, 1626, 2677, 2680
LAKE MICHIGAN FORMATION .....	390, 724, 1055, 1455, 1650, 1651, 1653, 2178, 3045
LAKE NEWBERRY (SA: lake stages) .....	2680
LAKE ONTONAGON (SA: lake stages) .....	1621
LAKE OSHKOSH (SA: lake stages) .....	2720
LAKE OUTLETS .....	168, 231, 349, 351, 352, 353, 379, 381, 382, 518, 519, 522, 683, 694, 889, 900, 995, 1020, 1090, 1091, 1093, 1094, 1095, 1211, 1217, 1218, 1331, 1337, 1338, 1433, 1463, 1520, 1546, 1550, 1552, 1617, 1618, 1620, 1623, 1625, 1910, 1911, 2002, 2003, 2091, 2102, 2575, 2577, 2583, 2584, 2598, 2681, 2682, 2720, 2947, 3012, 3063, 3072, 3100, 3140
LAKE SAGINAW (SA: lake stages) .....	1626, 2680
LAKE STAGES .....	10, 27, 129, 163, 164, 171, 172, 173, 175, 176, 181, 182, 192, 197, 231, 260, 261, 281, 347, 349, 351, 352, 353, 354, 363, 390, 393, 395, 439, 498, 523, 550, 559, 599, 601, 602, 603, 605, 745, 819, 850, 851, 853, 854, 855, 889, 898, 900, 921, 934, 935, 964, 985, 988, 989, 1046, 1047, 1089, 1090, 1091, 1093, 1094, 1095, 1096, 1210, 1211, 1212, 1213, 1216, 1217, 1218, 1265, 1301, 1399, 1401, 1408, 1433, 1496, 1544, 1545, 1546, 1547, 1548, 1549, 1550, 1552, 1554, 1617, 1618, 1621, 1623, 1626, 1627, 1628, 1634, 1635, 1750, 1789, 1830, 1832, 1852, 1853, 1862, 1863, 1983, 2099, 2175, 2227, 2276, 2332, 2439, 2442, 2443, 2536, 2541, 2556, 2557, 2559, 2575, 2576, 2577, 2578, 2583, 2584, 2598, 2677, 2678, 2679, 2680, 2681, 2682, 2714, 2716, 2720, 2946, 2947, 3012, 3022, 3045, 3063, 3064, 3069, 3070, 3119, 3131, 3140, 3142, 3164, 3165
LAKE STANLEY (SA: lake stages) .....	1789
LAKE VANUXEM (SA: lake stages) .....	2680
LAKE WARREN (SA: lake stages) .....	1211, 1626, 2575, 2577, 2677, 2680, 2947
LAKE WAYNE (SA: lake stages) .....	1626, 2680



LAKE WHITTLESEY (SA: lake stages) .....	1211,	1626,	2677,	2680		
LAND USE .....	3,	53,	69,	72,	76,	85,
(SA: history_land use)	91,	92,	97,	188,	191,	220,
(SA: mapping_land use)	244,	258,	307,	323,	366,	412,
(SA: review_land use)	425,	432,	435,	460,	475,	484,
(SA: shoreline_land use)	485,	486,	507,	508,	514,	543,
(SA: summary_land use)	552,	554,	559,	624,	649,	727,
	728,	748,	828,	871,	1009,	1011,
	1014,	1018,	1019,	1021,	1022,	1023,
	1025,	1027,	1029,	1030,	1113,	1125,
	1126,	1128,	1166,	1167,	1174,	1221,
	1256,	1257,	1259,	1262,	1264,	1267,
	1280,	1309,	1310,	1322,	1324,	1339,
	1345,	1346,	1347,	1348,	1349,	1350,
	1351,	1352,	1353,	1354,	1355,	1357,
	1371,	1380,	1385,	1443,	1472,	1477,
	1490,	1524,	1525,	1543,	1548,	1586,
	1828,	1857,	1859,	1920,	1980,	1986,
	1987,	1997,	2028,	2029,	2030,	2047,
	2135,	2148,	2189,	2236,	2237,	2288,
	2310,	2348,	2450,	2497,	2501,	2571,
	2597,	2600,	2601,	2653,	2654,	2754,
	2757,	2758,	2760,	2764,	2793,	2795,
	2797,	2798,	2813,	2816,	2832,	2879,
	2941,	2942,	2949,	3005,	3027,	3032,
	3047,	3094,	3095			
LEAD .....	11,	57,	58,	83,	91,	92,
	189,	198,	312,	345,	346,	407,
	408,	443,	460,	470,	495,	496,
	497,	532,	624,	728,	746,	773,
	782,	799,	800,	802,	824,	825,
	882,	891,	892,	933,	962,	975,
	1009,	1029,	1053,	1054,	1055,	1085,
	1101,	1117,	1136,	1165,	1245,	1253,
	1261,	1264,	1289,	1290,	1292,	1316,
	1322,	1324,	1349,	1350,	1354,	1355,
	1357,	1403,	1489,	1490,	1507,	1526,
	1557,	1558,	1592,	1594,	1595,	1596,
	1650,	1913,	1966,	2023,	2045,	2063,
	2116,	2140,	2151,	2244,	2254,	2255,
	2259,	2266,	2269,	2270,	2321,	2404,
	2418,	2431,	2436,	2437,	2490,	2494,
	2511,	2512,	2521,	2522,	2601,	2606,
	2607,	2708,	2710,	2730,	2733,	2739,
	2747,	2812,	2818,	2883,	2916,	2930,
	3059,	3157				
LEAD-210 .....	86,	90,	95,	236,	409,	411,
(SA: dating; SA: radionuclides)	467,	470,	490,	491,	492,	496,
	551,	703,	782,	784,	789,	795,
	802,	983,	1184,	1397,	1494,	1677,
	2044,	2045,	2149,	2244,	2259,	2263,
	2264,	2266,	2267,	2268,	2269,	2270,
	2271,	2275,	2491,	2956,	2957	
LIMESTONE .....	192,	943,	1025,	1215,	1513,	2560,
	2919,	2973,	3034			

LITTORAL DRIFT .....	99,	100,	129,	167,	245,	248,
(SA: sediments_transport)	249,	250,	252,	328,	331,	334,
	335,	336,	338,	341,	342,	343,
	383,	476,	527,	556,	603,	605,
	663,	664,	671,	672,	674,	679,
	681,	718,	739,	757,	903,	909,
	918,	970,	979,	996,	1017,	1063,
	1075,	1082,	1098,	1130,	1159,	1207,
	1260,	1266,	1268,	1274,	1275,	1276,
	1279,	1301,	1369,	1374,	1378,	1379,
	1395,	1398,	1424,	1452,	1462,	1484,
	1485,	1511,	1578,	1584,	1648,	1708,
	1775,	1781,	1816,	1827,	1828,	1847,
	1848,	1850,	2021,	2022,	2026,	2105,
	2182,	2214,	2328,	2335,	2336,	2381,
	2392,	2608,	2634,	2670,	2691,	2694,
	2696,	2697,	2754,	2757,	2758,	2760,
	2766,	2768,	2773,	2774,	2800,	2806,
	2810,	2838,	2843,	2844,	2939,	2981a,
	2981b,	3016,	3034,	3116,	3121,	3122,
	3126,	3127				

LOADING\_INORGANICS  
(S: inorganics\_loading)

LOADING\_SEDIMENTS  
(S: sediments\_loading)

LOADING\_TRIBUTARIES  
(S: tributaries\_loading)

LOAM ..... 416, 2602

LOCKS (S: hydraulics)

LOWER SHEBOYGAN MEMBER ..... 395

MAGNESIUM .....	11,	12,	132,	178,	224,	226,
	227,	228,	312,	345,	346,	416,
	417,	443,	481,	623,	624,	770,
	823,	933,	952,	1009,	1024,	1072,
	1252,	1421,	1498,	1561,	1596,	1669,
	1681,	1744,	1825,	1865,	2063,	2228,
	2254,	2255,	2265,	2269,	2273,	2311,
	2314,	2316,	2317,	2318,	2319,	2320,
	2321,	2410,	2436,	2521,	2591,	2711,
	2752					

MAGNETIC DATA (SA: geomagnetism) .....	276,	277,	600,	723,	724,	875,
	1004,	1407,	1408,	2034,	2035,	2036,
	2038,	2039,	2236,	2975,	2976,	3106

MAGNETITE ..... 269, 1667, 1668

MANGANESE .....	18,	132,	178,	224,	247,	312,
(SA: ferromanganese nodules)	345,	346,	407,	408,	415,	416,
	417,	418,	427,	526,	528,	534,
	728,	782,	791,	803,	882,	883,
	891,	892,	933,	983,	1024,	1055,
	1068,	1085,	1100,	1145,	1150,	1152,

MANGANESE (continued) .....	1286,	1290,	1292,	1324,	1372,	1557,
	1581,	1592,	1594,	1596,	1713,	1714,
	1799,	1806,	1807,	1864,	1865,	1866,
	1887,	1966,	2000,	2061,	2062,	2064,
	2228,	2244,	2263,	2265,	2267,	2269,
	2273,	2314,	2316,	2317,	2318,	2319,
	2320,	2321,	2404,	2512,	2521,	2522,
	2533,	2536,	2601,	2606,	2657,	2733,
	2739,	2740,	2924,	2932,	3059,	3106
MAPPING (SA: bathymetry)						
(SA: hydrography)						
MAPPING_COASTAL .....	9,	129,	245,	246,	304,	305,
	334,	425,	487,	488,	558,	561,
	562,	563,	565,	639,	666,	667,
	668,	740,	741,	742,	743,	744,
	755,	870,	998,	1060,	1064,	1065,
	1075,	1125,	1126,	1260,	1261,	1268,
	1275,	1279,	1296,	1297,	1298,	1300,
	1301,	1310,	1382,	1383,	1412,	1425,
	1469,	1474,	1678,	1679,	1680,	1742,
	1781,	1812,	1833,	1948,	1987,	2021,
	2022,	2026,	2182,	2310,	2355,	2440,
	2441,	2484,	2485,	2694,	2745,	2749,
	2750,	2769,	2770,	2793,	2803,	2804,
	2806,	2807,	2827,	2879,	2908,	3027,
	3063,	3085,	3106,	3121		
MAPPING_CURRENTS .....	334,	603,	605,	666,	667,	668,
	926,	927,	998,	1075,	1207,	1301,
	1561,	1781,	2014,	2020,	2162,	2182,
	2310,	2594,	2595,	2596,	2648,	2745,
	2749,	2750,	2803,	2806,	2807,	2888,
	3121					
MAPPING_GEOLOGY .....	9,	25,	28,	129,	139,	151,
	163,	245,	246,	253,	260,	261,
	334,	398,	407,	408,	440,	441,
	475,	481,	487,	488,	524,	558,
	561,	562,	563,	564,	565,	587,
	603,	605,	639,	649,	666,	667,
	668,	683,	740,	741,	742,	743,
	744,	755,	826,	867,	870,	915,
	917,	926,	927,	937,	960,	998,
	1004,	1012,	1060,	1064,	1065,	1075,
	1199,	1207,	1219,	1247,	1260,	1261,
	1268,	1275,	1279,	1296,	1297,	1298,
	1299,	1300,	1301,	1324,	1382,	1383,
	1425,	1469,	1474,	1510,	1513,	1531,
	1561,	1646,	1678,	1679,	1682,	1742,
	1748,	1773,	1774,	1781,	1795,	1798,
	1833,	1857,	1864,	1865,	1910,	1948,
	1983,	1987,	2021,	2022,	2026,	2035,
	2036,	2038,	2182,	2235,	2237,	2244,
	2310,	2314,	2318,	2355,	2439,	2440,
	2441,	2484,	2485,	2550,	2556,	2594,
	2595,	2596,	2671,	2685,	2694,	2711,
	2720,	2745,	2749,	2750,	2769,	2770,
	2793,	2804,	2806,	2827,	2908,	2969,



MAPPING_GEOLOGY (continued) .....	3007,	3027,	3063,	3064,	3085,	3103,
	3106,	3121				

MAPPING\_HYDROGRAPHY  
(S: hydrography)

MAPPING_ICE .....	110,	117,	126,	524,	649,	699,
	1066,	1067,	1513,	1603,	1740,	1742,
	2300,	2301,	2542,	2544,	2648,	2694,
	2803,	2806,	2807			

MAPPING_LAND USE .....	425,	475,	649,	1125,	1126,	1310,
	1324,	1586,	1857,	1920,	1987,	2237,
	2310,	2793,	2879,	3027		

MAPPING_NAVIGATION .....	117,	126,	587,	649,	699,	1066,
	1462,	1948,	2162,	2164,	2300,	2301,
	2749,	2750,	2803,	2807,	2851,	2879

MAPPING_REEFS .....	530,	564,	993,	1199,	1260,	2146,
	2556,	2594,	2595,	2596,	2879	

MAPPING_REMOTE SENSING .....	110,	245,	253,	649,	699,	1004,
	1066,	1067,	1126,	1283,	1301,	1324,
	1412,	1474,	1603,	1646,	1678,	1680,
	1682,	1742,	1857,	2020,	2150,	2237,
	2310,	2351,	2542,	2544,	2648,	2717,
	2879,	3085				

MAPPING_SEDIMENTS .....	129,	139,	151,	163,	245,	334,
(SA: sediments_distribution)	407,	408,	481,	524,	564,	603,
	605,	666,	667,	668,	755,	870,
	915,	926,	927,	998,	1060,	1075,
	1199,	1207,	1219,	1260,	1261,	1268,
	1275,	1279,	1299,	1301,	1318,	1324,
	1382,	1383,	1462,	1513,	1561,	1679,
	1742,	1774,	1781,	1795,	1864,	1865,
	2021,	2022,	2026,	2182,	2244,	2310,
	2314,	2318,	2440,	2441,	2484,	2556,
	2685,	2694,	2745,	2806,	3063,	3106,
	3121					

MAPPING_SEISMIC .....	398,	867,	1324,	1864,	2685,	3103,
	3106					

MAPPING_SHORELINE .....	9,	25,	28,	129,	245,	253,
	260,	261,	326,	334,	398,	403,
	425,	487,	488,	558,	561,	562,
	563,	565,	587,	590,	603,	605,
	639,	649,	666,	667,	668,	740,
	755,	893,	917,	926,	927,	937,
	960,	1060,	1064,	1065,	1075,	1106,
	1107,	1126,	1261,	1263,	1275,	1279,
	1296,	1297,	1298,	1301,	1310,	1382,
	1383,	1412,	1425,	1469,	1510,	1513,
	1531,	1586,	1742,	1781,	1798,	1833,
	1987,	2026,	2089,	2182,	2355,	2439,
	2440,	2441,	2464,	2671,	2694,	2720,
	2769,	2770,	2793,	2804,	2806,	2827,
	3027,	3106,	3121			

MAPPING_STRATIGRAPHY .....	9,	163,	524,	603,	605,	639,
(SA: stratigraphy)	755,	867,	1064,	1065,	1299,	1324,
	1469,	1531,	1742,	1781,	1833,	1910,
	1983,	2439,	2440,	2441,	3063,	3064,
	3106					
MAPPING_WATERSHED .....	475,	1012,	1126,	1462,	1586,	1748,
(SA: watershed)	1857,	1920,	2100,	2879		
MARINAS .....	808,	930,	1791,	2693,	3135,	3136
MARSHES (S: wetlands)						
MASS_BALANCE_INORGANICS .....	491,	532,	789,	824,	1036,	1355,
	1606,	1607,	1766,	1813,	1916,	1917,
	1918,	1925,	2329,	2409,	2444,	2658,
	2672,	2702,	2703,	2727,	2733,	2739
MASS_BALANCE_ORGANICS .....	56,	769,	789,	816,	1355,	1607,
	1710,	2658,	2660,	2702,	2703,	2739,
	3041					
MELOSIRA (SA: diatoms) .....	154,	513,	638,	860,	1051,	1193,
	1491,	1560,	1718,	2256,	2416,	2420,
	2491,	2619,	2623,	2624,	2625,	2626,
	2887,	2964,	3010			
MERCURY .....	31,	224,	244,	345,	346,	407,
	408,	443,	470,	474,	494,	592,
	746,	782,	803,	824,	882,	891,
	892,	933,	1029,	1054,	1055,	1085,
	1165,	1253,	1264,	1289,	1291,	1292,
	1316,	1324,	1350,	1357,	1441,	1471,
	1489,	1507,	1526,	1557,	1558,	1594,
	1595,	1596,	1650,	1700,	1913,	1966,
	2023,	2119,	2244,	2267,	2404,	2431,
	2516,	2536,	2606,	2607,	2664,	2708,
	2710,	2733,	2739,	2903,	2916,	3083,
	3106					
METALS .....	11,	12,	15,	16,	17,	18,
(SA: specific metals)	19,	20,	31,	32,	33,	57,
	58,	83,	86,	87,	89,	90,
	91,	92,	93,	132,	136,	142,
	148,	178,	189,	190,	198,	218,
	220,	224,	226,	227,	228,	236,
	244,	247,	251,	259,	300,	301,
	302,	303,	312,	345,	346,	397,
	407,	408,	409,	410,	411,	415,
	416,	417,	418,	427,	443,	460,
	466,	467,	470,	474,	481,	484,
	485,	489,	491,	492,	493,	494,
	495,	496,	497,	510,	526,	528,
	532,	534,	551,	592,	593,	623,
	624,	703,	706,	728,	746,	770,
	773,	782,	784,	785,	787,	789,
	790,	791,	792,	794,	795,	796,
	797,	798,	799,	800,	802,	803,
	804,	815,	823,	824,	825,	833,
	838,	882,	883,	885,	891,	892,

METALS (continued) .....	912,	932,	933,	949,	952,	962,
	963,	964,	968,	975,	983,	1009,
	1024,	1026,	1029,	1049,	1053,	1054,
	1055,	1068,	1072,	1085,	1101,	1117,
	1136,	1165,	1184,	1189,	1192,	1245,
	1252,	1253,	1255,	1261,	1264,	1286,
	1287,	1289,	1290,	1291,	1292,	1295,
	1306,	1307,	1308,	1312,	1316,	1318,
	1319,	1322,	1324,	1349,	1350,	1352,
	1354,	1355,	1357,	1361,	1372,	1397,
	1403,	1404,	1421,	1429,	1430,	1441,
	1446,	1447,	1471,	1476,	1489,	1490,
	1494,	1498,	1504,	1507,	1526,	1529,
	1536,	1539,	1557,	1558,	1561,	1581,
	1592,	1594,	1595,	1596,	1598,	1599,
	1607,	1650,	1667,	1668,	1677,	1681,
	1691,	1700,	1713,	1714,	1743,	1745,
	1746,	1767,	1769,	1785,	1799,	1806,
	1807,	1825,	1835,	1864,	1865,	1866,
	1887,	1902,	1913,	1916,	1917,	1918,
	1935,	1938,	1939,	1940,	1941,	1942,
	1943,	1966,	1988,	1989,	1990,	1991,
	1992,	1993,	1994,	2000,	2006,	2023,
	2031,	2045,	2046,	2058,	2061,	2062,
	2063,	2064,	2065,	2074,	2084,	2085,
	2104,	2116,	2119,	2124,	2136,	2137,
	2139,	2140,	2149,	2151,	2178,	2228,
	2229,	2244,	2245,	2254,	2255,	2259,
	2261,	2262,	2263,	2264,	2265,	2266,
	2267,	2268,	2269,	2270,	2272,	2273,
	2275,	2287,	2311,	2314,	2315,	2316,
	2317,	2318,	2319,	2320,	2321,	2322,
	2333,	2345,	2346,	2403,	2404,	2406,
	2410,	2414,	2418,	2431,	2432,	2434,
	2435,	2436,	2437,	2438,	2471,	2488,
	2490,	2491,	2494,	2511,	2512,	2516,
	2518,	2521,	2522,	2523,	2533,	2536,
	2547,	2558,	2590,	2591,	2601,	2606,
	2607,	2657,	2664,	2702,	2703,	2708,
	2710,	2711,	2727,	2728,	2729,	2730,
	2732,	2733,	2739,	2740,	2747,	2751,
	2752,	2753,	2761,	2763,	2764,	2812,
	2818,	2829,	2883,	2903,	2916,	2924,
	2930,	2940,	2956,	2957,	2964,	2988,
	2989,	2990,	2991,	2993,	2995,	2998,
	2999,	3001,	3003,	3004,	3059,	3061,
	3083,	3106,	3152,	3157		

METALS\_DEPOSITION  
(S: deposition\_metals)

METALS\_MODEL  
(S: model\_metals)

METALS_SEDIMENTS .....	15,	16,	17,	18,	20,	31,
	32,	57,	58,	83,	86,	87,
	89,	90,	91,	92,	93,	132,
	142,	178,	190,	198,	220,	226,
	227,	236,	244,	259,	303,	312,
	345,	346,	397,	407,	408,	409,



METALS_SEDIMENTS (continued) .....	410,	411,	416,	418,	427,	443,
	466,	467,	470,	474,	481,	484,
	485,	489,	491,	492,	493,	494,
	495,	496,	497,	510,	526,	528,
	532,	551,	592,	593,	623,	703,
	706,	728,	770,	773,	782,	784,
	785,	787,	789,	790,	792,	794,
	795,	796,	797,	798,	799,	800,
	802,	803,	804,	815,	824,	833,
	882,	883,	891,	892,	912,	932,
	933,	949,	962,	968,	983,	1009,
	1024,	1026,	1049,	1053,	1054,	1055,
	1068,	1072,	1101,	1117,	1136,	1165,
	1184,	1189,	1192,	1253,	1255,	1261,
	1286,	1289,	1292,	1295,	1316,	1318,
	1319,	1322,	1324,	1349,	1350,	1352,
	1354,	1355,	1357,	1361,	1397,	1403,
	1404,	1429,	1430,	1441,	1476,	1489,
	1490,	1494,	1498,	1504,	1507,	1526,
	1529,	1536,	1539,	1557,	1558,	1561,
	1581,	1594,	1595,	1596,	1599,	1650,
	1667,	1668,	1677,	1681,	1700,	1713,
	1714,	1743,	1745,	1785,	1799,	1807,
	1864,	1865,	1887,	1902,	1913,	1917,
	1918,	1935,	1938,	1939,	1940,	1941,
	1942,	1943,	1989,	1990,	1992,	1993,
	1994,	2000,	2006,	2023,	2031,	2045,
	2046,	2058,	2061,	2062,	2084,	2085,
	2104,	2119,	2124,	2136,	2137,	2139,
	2140,	2151,	2178,	2228,	2229,	2244,
	2245,	2259,	2263,	2264,	2265,	2266,
	2267,	2268,	2269,	2270,	2272,	2273,
	2275,	2314,	2315,	2316,	2318,	2319,
	2320,	2321,	2322,	2333,	2346,	2403,
	2404,	2418,	2432,	2471,	2488,	2490,
	2491,	2494,	2511,	2512,	2516,	2533,
	2536,	2547,	2558,	2590,	2591,	2606,
	2664,	2702,	2703,	2708,	2710,	2727,
	2728,	2729,	2732,	2739,	2740,	2747,
	2751,	2752,	2753,	2764,	2812,	2818,
	2829,	2903,	2916,	2924,	2956,	2957,
	2988,	2989,	2990,	2991,	2993,	2995,
	2999,	3003,	3004,	3083,	3106,	3152

METEOROLOGY (S: climate, ice,  
lake breeze, lake effect,  
precipitation, storms, or wind)

MINERALS .....	251,	259,	269,	270,	281,	307,
	313,	415,	416,	417,	418,	437,
	473,	685,	749,	755,	757,	869,
	913,	968,	1009,	1014,	1025,	1055,
	1056,	1119,	1133,	1189,	1249,	1250,
	1266,	1483,	1485,	1553,	1622,	1630,
	1652,	1716,	1799,	1862,	1863,	1864,
	1865,	1866,	2105,	2112,	2227,	2230,
	2235,	2236,	2251,	2271,	2314,	2316,
	2318,	2319,	2320,	2322,	2498,	2511,
	2514,	2536,	2538,	2604,	2731,	2746,
	2916,	2932,	2933,	2974,	3019,	3063,
	3064					

MINING .....	188,	261,	417,	686,	869,	1009,
	1015,	1865,	1866,	1982,	2932,	2933,
	3020,	3021				
MIXING .....	13,	14,	18,	51,	137,	147,
	212,	215,	233,	237,	238,	243,
	265,	410,	443,	490,	496,	510,
	581,	620,	703,	783,	790,	797,
	800,	801,	802,	823,	865,	940,
	1103,	1104,	1105,	1113,	1131,	1243,
	1244,	1255,	1289,	1406,	1442,	1504,
	1539,	1596,	1631,	1639,	1656,	1691,
	1728,	1738,	1761,	1765,	1766,	1768,
	1836,	1884,	1889,	1890,	1891,	1898,
	1931,	1935,	1938,	1939,	1940,	1941,
	1942,	1943,	1964,	1988,	2009,	2010,
	2011,	2015,	2041,	2042,	2063,	2064,
	2118,	2132,	2185,	2218,	2257,	2259,
	2264,	2266,	2267,	2268,	2270,	2274,
	2275,	2290,	2323,	2362,	2388,	2410,
	2414,	2421,	2479,	2480,	2491,	2547,
	2548,	2556,	2615,	2620,	2640,	2649,
	2655,	2672,	2882,	2884,	2888,	2890,
	2956,	2957,	2963,	2977,	2988,	2990,
	2995,	3001,	3060,	3108,	3160	
MODEL_CIRCULATION .....	13,	14,	34,	35,	36,	38,
	39,	40,	106,	132,	239,	240,
	241,	243,	263,	265,	404,	614,
	615,	616,	617,	619,	620,	719,
	872,	924,	1069,	1103,	1104,	1105,
	1118,	1164,	1204,	1234,	1235,	1254,
	1255,	1405,	1406,	1412,	1414,	1467,
	1468,	1582,	1607,	1637,	1638,	1639,
	1689,	1725,	1768,	1781,	1786,	1795,
	1883,	1889,	1890,	1892,	1894,	1933,
	2011,	2018,	2069,	2123,	2144,	2197,
	2259,	2384,	2454,	2455,	2458,	2460,
	2466,	2592,	2641,	2642,	2655,	2662,
	2725,	2726,	3052,	3145,	3160	
MODEL_CURRENTS .....	14,	34,	35,	36,	38,	39,
	40,	106,	145,	153,	237,	239,
	240,	241,	243,	263,	265,	318,
	405,	483,	615,	616,	617,	619,
	620,	631,	666,	667,	673,	872,
	904,	905,	907,	909,	924,	998,
	999,	1104,	1105,	1118,	1141,	1142,
	1164,	1234,	1235,	1236,	1237,	1254,
	1255,	1377,	1392,	1398,	1405,	1406,
	1582,	1611,	1612,	1637,	1638,	1639,
	1658,	1661,	1725,	1768,	1781,	1786,
	1876,	1883,	1886,	1889,	1890,	1892,
	1894,	1895,	1900,	1933,	1938,	2018,
	2069,	2123,	2128,	2197,	2381,	2384,
	2454,	2455,	2458,	2460,	2466,	2467,
	2547,	2548,	2592,	2981a,	3017,	3102,
	3145,	3160				

MODEL_DEPOSITION .....	11,	56,	83,	87,	242,	490,
	499,	532,	624,	667,	673,	719,
	784,	789,	800,	816,	909,	964,
	999,	1069,	1082,	1131,	1164,	1318,
	1324,	1377,	1412,	1598,	1639,	1710,
	1834,	1916,	1917,	1918,	1935,	1938,
	1939,	1940,	1941,	1942,	1943,	2215,
	2228,	2261,	2262,	2264,	2266,	2268,
	2270,	2292,	2436,	2437,	2518,	2520,
	2523,	2550,	2659,	2701,	2703,	2705,
	2730,	3002,	3013,	3014,	3017,	3060
MODEL_DISPERSION .....	13,	34,	85,	106,	237,	620,
	722,	1118,	1236,	1377,	1405,	1406,
	1414,	1637,	1768,	1895,	2381,	2384,
	2466,	2467,	2518,	2547,	2548,	3068,
	3102,	3160				
MODEL_EROSION .....	97,	100,	101,	341,	484,	554,
	624,	631,	644,	659,	666,	667,
	673,	705,	748,	805,	810,	812,
	905,	907,	909,	917,	1017,	1082,
	1083,	1084,	1182,	1255,	1352,	1398,
	1448,	1548,	1781,	1834,	1916,	1986,
	2029,	2106,	2107,	2108,	2127,	2148,
	2228,	2270,	2328,	2437,	2490,	2547,
	2653,	2670,	2730,	2764,	2839,	2981b,
	3022,	3120				
MODEL_FLOW (S: flow_model)						
MODEL_GROUNDWATER .....	53,	87,	320,	330,	376,	391,
	484,	485,	624,	690,	696,	812,
	976,	991,	1173,	1318,	1324,	1352,
	1418,	1490,	1520,	1731,	1784,	1800,
	1960,	1981,	2325,	2428,	2437,	2490,
	2502,	2597				
MODEL_HYDROLOGY .....	53,	87,	101,	132,	153,	168,
	320,	330,	356,	376,	391,	404,
	484,	485,	506,	538,	539,	540,
	541,	542,	606,	607,	609,	624,
	690,	696,	705,	714,	830,	924,
	965,	991,	1103,	1104,	1105,	1121,
	1122,	1123,	1124,	1173,	1182,	1204,
	1255,	1352,	1419,	1490,	1520,	1673,
	1778,	1784,	1792,	1793,	1800,	1883,
	1890,	1960,	1981,	2028,	2029,	2030,
	2101,	2102,	2122,	2127,	2158,	2190,
	2191,	2193,	2194,	2198,	2199,	2203,
	2209,	2218,	2325,	2360,	2428,	2437,
	2474,	2502,	2566,	2630,	2839,	2891,
	3005,	3156				
MODEL_ICE .....	13,	14,	112,	115,	121,	123,
	292,	471,	715,	716,	1122,	1124,
	1255,	1605,	1606,	1637,	1673,	1848,
	1890,	2016,	2123,	2191,	2198,	2293,



MODEL\_ICE (continued) ..... 2294, 2337, 2360, 2477, 2764, 3144,  
3156

MODEL\_INORGANICS ..... 11, 13, 14, 53, 83, 85,  
87, 132, 153, 374, 404, 405,  
467, 468, 484, 485, 490, 492,  
496, 532, 624, 703, 722, 784,  
785, 789, 800, 838, 964, 1117,  
1164, 1230, 1255, 1318, 1324, 1352,  
1405, 1406, 1478, 1479, 1490, 1498,  
1504, 1539, 1552, 1581, 1598, 1605,  
1606, 1607, 1639, 1677, 1679, 1681,  
1698, 1721, 1781, 1785, 1895, 1916,  
1917, 1918, 1935, 1938, 1939, 1940,  
1941, 1942, 1943, 1986, 1989, 2028,  
2029, 2030, 2044, 2215, 2228, 2259,  
2261, 2262, 2263, 2264, 2266, 2268,  
2270, 2271, 2275, 2399, 2410, 2411,  
2436, 2437, 2466, 2467, 2471, 2490,  
2493, 2518, 2520, 2523, 2547, 2563,  
2564, 2569, 2653, 2658, 2702, 2703,  
2704, 2730, 2764, 2988, 3002, 3089

MODEL\_LAKE EFFECT ..... 24, 45, 186, 187, 308, 309,  
499, 637, 719, 722, 876, 964,  
1186, 1187, 1231, 1232, 1233, 1492,  
1493, 1698, 1876, 1998, 2243, 2641,  
2642, 3068

MODEL\_LAKE LEVELS  
(S: lake levels\_model)

MODEL\_METALS ..... 11, 83, 87, 132, 467, 484,  
485, 492, 496, 532, 624, 703,  
784, 785, 789, 800, 838, 964,  
1117, 1255, 1318, 1324, 1352, 1490,  
1498, 1504, 1539, 1581, 1598, 1607,  
1677, 1681, 1785, 1916, 1917, 1918,  
1935, 1938, 1939, 1940, 1941, 1942,  
1943, 1989, 2228, 2259, 2261, 2262,  
2263, 2264, 2266, 2268, 2270, 2275,  
2410, 2436, 2437, 2471, 2490, 2518,  
2523, 2547, 2702, 2703, 2730, 2764,  
2988

MODEL\_PRECIPITATION ..... 11, 13, 14, 45, 87, 123,  
168, 186, 187, 283, 286, 308,  
309, 330, 374, 376, 404, 532,  
538, 539, 540, 606, 607, 624,  
625, 637, 690, 696, 705, 714,  
719, 720, 876, 964, 965, 1104,  
1105, 1124, 1186, 1187, 1204, 1231,  
1233, 1490, 1520, 1598, 1784, 1792,  
1793, 1916, 1998, 2029, 2101, 2127,  
2158, 2191, 2197, 2198, 2209, 2215,  
2218, 2261, 2360, 2550, 2592, 2630,  
2659, 2764, 3153, 3156

MODEL\_RUNOFF ..... 53, 330, 376, 404, 467, 554,  
606, 607, 609, 624, 690, 696

MODEL_RUNOFF (continued) .....	705,	714,	748,	810,	1104,	1105,
	1123,	1124,	1204,	1324,	1352,	1419,
	1490,	1520,	1721,	1722,	1783,	1784,
	1792,	1793,	1916,	1960,	1986,	2028,
	2029,	2030,	2101,	2127,	2191,	2197,
	2198,	2218,	2437,	2653,	2659,	3156
MODEL_SEDIMENTS .....	83,	87,	100,	106,	132,	242,
	320,	341,	343,	467,	483,	484,
	485,	490,	492,	496,	532,	666,
	667,	673,	703,	748,	784,	785,
	789,	800,	812,	816,	904,	905,
	907,	909,	991,	998,	999,	1017,
	1069,	1082,	1083,	1084,	1117,	1131,
	1132,	1164,	1230,	1255,	1318,	1324,
	1352,	1377,	1382,	1383,	1398,	1490,
	1498,	1504,	1539,	1548,	1552,	1581,
	1611,	1612,	1639,	1677,	1679,	1681,
	1781,	1785,	1795,	1834,	1848,	1895,
	1917,	1918,	1935,	1938,	1939,	1940,
	1941,	1942,	1943,	1989,	2028,	2029,
	2030,	2044,	2069,	2106,	2108,	2228,
	2259,	2263,	2264,	2266,	2268,	2270,
	2271,	2275,	2325,	2328,	2381,	2411,
	2471,	2490,	2493,	2547,	2563,	2564,
	2653,	2658,	2659,	2670,	2701,	2702,
	2703,	2704,	2705,	2764,	2839,	2974,
	2979,	2981,	2988,	3002,	3013,	3014,
	3017,	3022,	3037,	3041		
MODEL_WATER BUDGET .....	168,	330,	376,	538,	606,	607,
	690,	696,	705,	830,	965,	1104,
	1105,	1121,	1122,	1123,	1124,	1204,
	1255,	1520,	1673,	1784,	1792,	1793,
	2127,	2158,	2191,	2193,	2198,	2199,
	2209,	2360,	2630,	3156		
MODEL_WATER SUPPLY .....	320,	539,	624,	705,	965,	1122,
	1325,	1406,	1418,	1672,	1707,	1784,
	1960,	2193,	2630			
MODEL_WAVES .....	34,	38,	39,	240,	263,	343,
	483,	546,	548,	612,	614,	615,
	619,	631,	666,	667,	673,	730,
	786,	805,	810,	812,	872,	902,
	904,	905,	907,	909,	924,	998,
	999,	1017,	1083,	1104,	1105,	1141,
	1142,	1164,	1377,	1381,	1382,	1383,
	1398,	1612,	1638,	1639,	1657,	1658,
	1660,	1661,	1664,	1665,	1781,	1786,
	1848,	1886,	1890,	1894,	1900,	2069,
	2106,	2108,	2141,	2143,	2144,	2153,
	2222,	2286,	2328,	2337,	2386,	2436,
	2456,	2457,	2459,	2461,	2466,	2592,
	2655,	2670,	2712,	2981a,	2981b,	3017,
	3052,	3120,	3145			
MODEL_WIND .....	13,	14,	24,	34,	35,	36,
	38,	40,	45,	106,	186,	187,
	239,	240,	241,	243,	263,	265,

MODEL_WIND (continued) .....	308,	318,	343,	374,	376,	396,
	483,	499,	540,	546,	548,	615,
	616,	617,	619,	637,	667,	722,
	730,	805,	872,	876,	902,	904,
	905,	907,	909,	964,	1103,	1104,
	1105,	1135,	1142,	1164,	1186,	1187,
	1204,	1233,	1234,	1235,	1254,	1352,
	1377,	1381,	1392,	1405,	1406,	1412,
	1414,	1467,	1468,	1520,	1582,	1612,
	1637,	1639,	1657,	1658,	1660,	1661,
	1664,	1665,	1689,	1698,	1725,	1781,
	1786,	1876,	1883,	1886,	1889,	1890,
	1894,	1900,	1933,	1938,	2011,	2018,
	2123,	2127,	2141,	2142,	2143,	2153,
	2156,	2243,	2337,	2381,	2384,	2436,
	2454,	2455,	2456,	2459,	2460,	2461,
	2463,	2466,	2467,	2477,	2518,	2523,
	2550,	2592,	2641,	2642,	2655,	2725,
	2726,	2764,	2981a,	3017,	3052,	3060,
	3068,	3144,	3145,	3160		
MODELING (S: model)						
MOLYBDENUM .....	312,	534,	1594,	2273,	2317,	2320,
	2321,	2521,	2522,	2733,	2739	
MONTMORILLONITE .....	416,	2511,	2538			
MORaine .....	81,	82,	129,	349,	351,	352,
	353,	437,	438,	440,	441,	498,
	684,	853,	935,	1075,	1089,	1092,
	1265,	1433,	1554,	1617,	1624,	1626,
	1627,	1831,	1832,	1852,	1853,	2439,
	2806,	3140				
MORPHOMETRY (BASIN) .....	622,	1160,	1161,	1890,	2217,	2283
(SA: basin_morphology)						
(SA: geomorphology)						
NAVICULA (SA: diatoms).....	1051,	1560,	2611,	2619		
NAVIGATION .....	84,	108,	109,	111,	117,	123,
(SA: mapping_navigation)	126,	127,	128,	177,	200,	220,
(SA: shipping)	223,	267,	273,	274,	280,	306,
	382,	402,	432,	433,	435,	571,
	572,	573,	574,	587,	612,	643,
	644,	649,	678,	685,	686,	692,
	693,	699,	705,	715,	717,	828,
	869,	871,	874,	1013,	1015,	1020,
	1023,	1024,	1029,	1030,	1032,	1033,
	1039,	1052,	1066,	1097,	1139,	1149,
	1182,	1264,	1284,	1304,	1305,	1334,
	1335,	1336,	1340,	1341,	1448,	1462,
	1463,	1464,	1475,	1563,	1571,	1572,
	1573,	1575,	1629,	1672,	1702,	1729,
	1741,	1770,	1786,	1813,	1822,	1919,
	1948,	1995,	2007,	2033,	2067,	2130,
	2145,	2162,	2164,	2207,	2225,	2293,
	2294,	2297,	2300,	2301,	2302,	2303,
	2304,	2360,	2405,	2422,	2423,	2424,
	2425,	2635,	2740,	2750,	2764,	2777,



NAVIGATION (continued) .....	2778,	2779,	2791,	2797,	2798,	2803,
	2807,	2815,	2818,	2820,	2821,	2825,
	2830,	2842,	2846,	2848,	2849,	2851,
	2868,	2879,	2892,	2929,	2932,	2935,
	3034					
NEPHELOID LAYER .....	90,	230,	443,	444,	445,	771,
	772,	778,	783,	784,	787,	789,
	816,	1119,	1804,	1938,	2228,	2229,
	2408,	2491,	2702,	2924,	2956,	2957
NEPTUNIUM .....	2999					
NET BASIN SUPPLY (S: water budget)						
(S: hydrology_water supply)						
NICKEL .....	11,	132,	312,	345,	346,	417,
	443,	526,	534,	624,	728,	891,
	892,	933,	983,	1054,	1055,	1068,
	1117,	1136,	1192,	1253,	1290,	1292,
	1316,	1324,	1471,	1489,	1526,	1557,
	1558,	1594,	1596,	1650,	1806,	1807,
	1864,	1865,	1913,	1966,	2023,	2064,
	2119,	2140,	2244,	2254,	2255,	2265,
	2269,	2273,	2317,	2319,	2320,	2321,
	2404,	2431,	2437,	2490,	2511,	2512,
	2522,	2606,	2607,	2710,	2733,	2739,
	2747,	2818,	2883,	2916		
NIPISSING STAGE (S: lake stages) .....	351,	898,	988,	1091,	1210,	1211,
	1548,	1621,	1862,	1863,	2598,	2680,
	2681,	2720,	2947,	3165		
NITZSCHIA (S: diatoms) .....	1051,	1560,	1718,	2401,	2624	
OAK CREEK FORMATION .....	1089					
ORGANIC CARBON .....	147,	155,	178,	226,	227,	247,
(SA: deposition_organic carbon)	251,	300,	301,	302,	311,	393,
	397,	407,	408,	410,	411,	416,
	443,	513,	526,	528,	585,	624,
	773,	779,	782,	785,	818,	823,
	860,	861,	933,	1024,	1048,	1053,
	1055,	1136,	1316,	1354,	1361,	1441,
	1449,	1453,	1526,	1537,	1565,	1589,
	1593,	1595,	1630,	1766,	1768,	1802,
	1804,	1805,	1806,	1873,	1989,	2061,
	2063,	2064,	2075,	2119,	2167,	2169,
	2181,	2227,	2245,	2269,	2318,	2319,
	2321,	2333,	2352,	2400,	2414,	2432,
	2436,	2490,	2491,	2511,	2512,	2517,
	2526,	2547,	2626,	2632,	2667,	2739,
	2924					
ORGANIC MATTER .....	31,	33,	89,	91,	92,	310,
	311,	582,	827,	947,	948,	950,
	951,	968,	1095,	1316,	1397,	1404,
	1536,	1537,	1565,	1587,	1594,	1596,
	1753,	1760,	1802,	1804,	1806,	1864,
	1873,	1896,	1971,	2058,	2165,	2227,

ORGANIC MATTER (continued) .....	2229,	2245,	2281,	2282,	2491,	2516,
	2527,	2536,	2661,	2723,	2887,	2956,
	2996,	2997,	3000			

ORGANICS\_DEPOSITION  
(S: deposition\_organics)

ORGANICS\_DISPERSION  
(SA: dispersion\_organics)

ORGANICS\_MASS BALANCE  
(S: mass balance\_organics)

ORGANICS\_REVIEW  
(S: review\_organics)

ORGANICS_SEDIMENTS .....	31,	32,	51,	57,	58,	94,
(SA: hydrocarbons_sediments)	95,	133,	142,	184,	220,	244,
	258,	259,	303,	312,	320,	345,
	346,	427,	443,	466,	467,	470,
	484,	485,	497,	510,	529,	628,
	706,	707,	736,	763,	766,	769,
	775,	776,	779,	781,	782,	783,
	784,	785,	789,	815,	816,	833,
	888,	912,	913,	914,	915,	1024,
	1026,	1054,	1097,	1101,	1111,	1117,
	1133,	1136,	1146,	1149,	1169,	1184,
	1255,	1261,	1286,	1289,	1292,	1295,
	1316,	1318,	1319,	1322,	1323,	1324,
	1350,	1352,	1354,	1355,	1357,	1390,
	1400,	1404,	1429,	1431,	1473,	1476,
	1489,	1490,	1527,	1529,	1535,	1536,
	1539,	1581,	1587,	1588,	1593,	1596,
	1639,	1640,	1700,	1716,	1755,	1756,
	1801,	1803,	1804,	1807,	1820,	1826,
	1839,	1895,	1935,	1938,	1939,	1940,
	1941,	1942,	1943,	2023,	2032,	2046,
	2073,	2088,	2124,	2140,	2151,	2244,
	2313,	2315,	2402,	2403,	2404,	2490,
	2491,	2512,	2526,	2527,	2546,	2547,
	2571,	2606,	2658,	2659,	2660,	2661,
	2664,	2667,	2701,	2702,	2703,	2704,
	2705,	2708,	2709,	2739,	2746,	2780,
	2895,	2903,	2909,	2960,	2978,	2979,
	3013,	3014,	3036,	3041,	3066,	3095

OSCILLATIONS .....	232,	568,	621,	849,	873,	924,
(SA: seiche; SA: tides; SA: waves)	1141,	1204,	1238,	1519,	1520,	1786,
	1837,	1880,	1886,	1889,	1897,	1899,
	1900,	2050,	2144,	2160,	2171,	2222,
	2223,	2286,	2389,	2397,	2398,	2455,
	2474,	2924,	2962,	2996		

OSTRACODA .....	163,	164,	390,	393,	394,	395,
	839,	1156,	1289,	1907,	1975,	2178

OXYGEN .....	17,	51,	131,	132,	152,	155,
	159,	188,	202,	204,	216,	219,
	224,	226,	227,	228,	259,	345,
	346,	397,	405,	468,	469,	593

OXYGEN (continued) .....	624,	635,	770,	827,	913,	914,
	944,	947,	948,	1024,	1029,	1051,
	1101,	1111,	1115,	1117,	1228,	1229,
	1230,	1255,	1286,	1289,	1292,	1308,
	1312,	1324,	1354,	1394,	1442,	1491,
	1507,	1557,	1581,	1707,	1716,	1721,
	1728,	1734,	1738,	1844,	1864,	1884,
	1885,	1887,	1975,	2058,	2157,	2181,
	2244,	2254,	2255,	2272,	2317,	2329,
	2353,	2403,	2404,	2416,	2490,	2547,
	2591,	2600,	2601,	2606,	2729,	2734,
	2739,	2747,	2752,	2761,	2763,	2764,
	2780,	2812,	2818,	2883,	2889,	2890,
	2896,	2905,	2909,	2956,	2957,	2964,
	2977,	3089,	3090,	3159		
OZAUKEE MEMBER .....	832					
PALEOBOTANY .....	937,	1206				
PALEOCLIMATOLOGY (SA: climate) .....	395,	538,	651,	935,	1106,	1107,
	1544,	1545,	1546,	1547,	1548,	1550,
	1614,	2178,	2347			
PALEOECOLOGY .....	147,	171,	172,	173,	174,	176,
(SA: fossils; SA: glacial;	182,	393,	394,	395,	399,	401,
SA: history; SA: paleolimnology)	490,	550,	551,	651,	896,	901,
	919,	921,	935,	938,	1046,	1047,
	1050,	1096,	1106,	1107,	1212,	1324,
	1362,	1399,	1445,	1454,	1455,	1465,
	1544,	1548,	1550,	1551,	1628,	1856,
	1996,	2080,	2081,	2178,	2236,	2276,
	2659,	2700,	2924,	2976,	3028,	3141,
	3165					
PALEOLIMNOLOGY .....	61,	1054,	1407,	1408,	1587,	1667,
(SA: paleoecology)	2411					
PALEONTOLOGY .....	163,	278,	390,	937,	2099,	2688
PALYNOLOGY (S: pollen)						
PARTICULATES (S: particles)						
PARTICLES .....	19,	20,	31,	33,	51,	56,
(SA: grain size_particles)	57,	89,	90,	91,	92,	178,
	189,	230,	236,	243,	300,	301,
	302,	444,	445,	467,	470,	472,
	473,	483,	491,	496,	520,	525,
	698,	719,	748,	771,	772,	773,
	778,	783,	784,	785,	789,	790,
	792,	796,	804,	817,	825,	885,
	910,	950,	963,	964,	975,	981,
	1049,	1050,	1069,	1131,	1133,	1134,
	1136,	1147,	1229,	1245,	1246,	1357,
	1412,	1476,	1503,	1504,	1505,	1538,
	1581,	1587,	1590,	1592,	1604,	1609,
	1689,	1691,	1693,	1694,	1698,	1709,
	1713,	1714,	1743,	1753,	1760,	1803,
	1804,	1805,	1806,	1807,	1916,	1924,



PARTICLES (continued) .....	1930,	1938,	1939,	1940,	1941,	1942,
	1943,	1989,	1991,	1992,	1993,	2058,
	2064,	2065,	2082,	2084,	2085,	2118,
	2124,	2149,	2167,	2228,	2229,	2245,
	2249,	2262,	2274,	2281,	2282,	2316,
	2322,	2329,	2352,	2400,	2408,	2434,
	2435,	2436,	2437,	2460,	2491,	2492,
	2493,	2494,	2496,	2501,	2518,	2519,
	2520,	2521,	2522,	2523,	2533,	2632,
	2658,	2666,	2701,	2703,	2705,	2709,
	2727,	2728,	2752,	2895,	2924,	2956,
	2959,	2978,	2990,	2991,	2992,	2993,
	2994,	2995,	2999,	3001,	3002,	3003,
	3026,	3059,	3060,	3079		

PARTICLES_FLUX .....	56,	57,	90,	230,	444,	467,
	470,	483,	496,	771,	772,	773,
	783,	784,	785,	790,	796,	804,
	981,	1050,	1505,	1713,	1714,	1938,
	1939,	1940,	1941,	1942,	1943,	1992,
	1993,	2228,	2229,	2274,	2352,	2435,
	2437,	2491,	2496,	2520,	2521,	2522,
	2658,	2705,	2727,	2895,	2924,	2995,
	3002,	3026,	3060			

PARTICLES_TRANSPORT .....	20,	31,	57,	90,	91,	92,
	243,	444,	467,	470,	520,	719,
	772,	784,	785,	789,	885,	910,
	975,	1069,	1131,	1136,	1245,	1246,
	1412,	1503,	1504,	1505,	1538,	1592,
	1604,	1609,	1689,	1691,	1693,	1694,
	1698,	1709,	1743,	1804,	1806,	1930,
	1938,	1939,	1940,	1941,	1942,	1943,
	2064,	2082,	2084,	2118,	2228,	2229,
	2245,	2352,	2408,	2437,	2491,	2501,
	2518,	2521,	2523,	2533,	2658,	2705,
	2895,	2956,	2990,	3026,	3059,	3060

PARTICLE SIZE (S: grain size)

PEAT .....	920,	921,	1009,	1399,	1545,	1553,
	2602					

PHOSPHORUS_SEDIMENTS .....	87,	89,	91,	92,	93,	132,
	220,	226,	227,	244,	259,	312,
	345,	346,	397,	443,	510,	576,
	579,	585,	623,	698,	728,	763,
	770,	773,	933,	944,	949,	950,
	955,	956,	1024,	1097,	1101,	1111,
	1117,	1136,	1230,	1261,	1286,	1289,
	1292,	1295,	1316,	1318,	1322,	1324,
	1350,	1352,	1354,	1355,	1357,	1361,
	1404,	1453,	1477,	1490,	1498,	1538,
	1558,	1581,	1596,	1643,	1681,	1738,
	1860,	1885,	1887,	1895,	1963,	1964,
	1965,	1976,	2028,	2029,	2030,	2181,
	2186,	2244,	2269,	2316,	2320,	2321,
	2324,	2354,	2403,	2404,	2409,	2411,
	2416,	2418,	2419,	2432,	2490,	2491,
	2536,	2547,	2563,	2564,	2572,	2590,

PHOSPHORUS_SEDIMENTS (continued) .....	2591,	2606,	2653,	2654,	2739,	2747,
	2752,	2764,	2812,	2818,	2903,	2909,
	2916,	2924				
PHYSIOGRAPHY .....	425,	597,	603,	605,	936,	1020,
	1024,	1252,	1715,	1798,	2100,	2173,
	2760,	2943,	2944,	3005,	3063	
PHYTOPLANKTON_SEDIMENTS .....	86,	89,	90,	132,	142,	147,
(SA: history_phytoplankton)	219,	259,	303,	312,	401,	443,
	469,	470,	510,	576,	579,	580,
	592,	593,	698,	763,	785,	860,
	878,	944,	950,	981,	1024,	1117,
	1119,	1133,	1136,	1255,	1261,	1286,
	1289,	1292,	1295,	1316,	1318,	1319,
	1324,	1390,	1457,	1458,	1489,	1639,
	1640,	1643,	1743,	1745,	1844,	1884,
	1896,	1971,	1994,	2076,	2078,	2079,
	2080,	2081,	2082,	2084,	2085,	2181,
	2185,	2228,	2271,	2276,	2310,	2313,
	2316,	2354,	2400,	2403,	2404,	2408,
	2409,	2411,	2413,	2416,	2418,	2419,
	2468,	2473,	2481,	2488,	2490,	2491,
	2517,	2541,	2546,	2547,	2591,	2606,
	2617,	2754,	2758,	2886,	2909,	2924,
	2956,	2957,	2988,	2990,	2991,	3152
PLEISTOCENE (SA: history) .....	10,	163,	174,	275,	278,	281,
	310,	351,	476,	498,	515,	517,
	523,	550,	764,	831,	832,	850,
	851,	853,	854,	856,	898,	899,
	933,	935,	1054,	1055,	1085,	1089,
	1091,	1093,	1094,	1096,	1209,	1316,
	1401,	1407,	1454,	1531,	1554,	1555,
	1615,	1616,	1617,	1618,	1626,	1649,
	1650,	1651,	1652,	1653,	1754,	1789,
	1832,	1852,	1853,	1983,	2044,	2105,
	2236,	2289,	2341,	2499,	2524,	2579,
	2688,	2716,	2720,	2975,	3022,	3028,
	3045,	3049,	3064,	3069,	3070,	3119,
	3162,	3165				
PLUTONIUM .....	15,	16,	17,	18,	19,	20,
	86,	236,	409,	467,	787,	789,
	790,	792,	796,	797,	804,	983,
	1403,	1539,	1745,	1746,	1935,	1938,
	1989,	1990,	1991,	1992,	1993,	2140,
	2261,	2702,	2703,	2988,	2989,	2990,
	2991,	2993,	2995,	2998,	2999,	3001,
	3003,	3004,	3106,	3152		
POLLEN .....	163,	470,	551,	771,	855,	896,
	1399,	1454,	1455,	1546,	1550,	1628,
	2040,	2268,	2270,	2585,	3141,	3142,
	3164,	3165				
POLONIUM .....	2149					
PORE WATER .....	89,	416,	576,	779,	781,	782,
(SA: sediment-water interface)	951,	1184,	1324,	1536,	1713,	1714,

PORE WATER (continued) ..... 1873, 2263, 2275, 2318, 2319, 2729,  
2734

PRECIPITATION ..... 2, 6, 11, 13, 14, 23,  
(SA: snow) 45, 57, 58, 87, 93, 123,  
127, 128, 129, 136, 138, 168,  
186, 187, 199, 208, 212, 224,  
244, 246, 273, 274, 283, 286,  
290, 293, 308, 309, 319, 324,  
326, 327, 330, 358, 359, 360,  
361, 369, 370, 371, 373, 374,  
376, 377, 378, 380, 381, 382,  
392, 404, 432, 447, 450, 451,  
452, 453, 454, 455, 456, 457,  
459, 460, 461, 462, 463, 464,  
532, 537, 538, 539, 540, 606,  
607, 613, 624, 625, 636, 637,  
688, 690, 694, 696, 705, 710,  
712, 713, 714, 719, 720, 761,  
813, 834, 876, 913, 921, 941,  
963, 964, 965, 974, 1007, 1020,  
1024, 1029, 1032, 1042, 1044, 1052,  
1085, 1104, 1105, 1124, 1144, 1150,  
1151, 1153, 1185, 1186, 1187, 1204,  
1231, 1233, 1243, 1264, 1266, 1301,  
1303, 1335, 1336, 1338, 1340, 1341,  
1342, 1344, 1393, 1424, 1435, 1436,  
1437, 1439, 1462, 1471, 1473, 1489,  
1490, 1502, 1520, 1567, 1598, 1621,  
1644, 1683, 1684, 1697, 1699, 1709,  
1716, 1742, 1750, 1777, 1784, 1792,  
1793, 1794, 1803, 1807, 1813, 1822,  
1826, 1843, 1874, 1914, 1916, 1921,  
1924, 1925, 1926, 1927, 1928, 1929,  
1930, 1936, 1988, 1998, 1999, 2029,  
2050, 2074, 2087, 2100, 2101, 2110,  
2111, 2115, 2121, 2127, 2133, 2158,  
2162, 2163, 2171, 2175, 2176, 2179,  
2191, 2197, 2198, 2201, 2202, 2206,  
2207, 2208, 2209, 2211, 2212, 2214,  
2215, 2218, 2261, 2305, 2306, 2307,  
2308, 2338, 2360, 2370, 2387, 2426,  
2429, 2445, 2446, 2448, 2483, 2487,  
2495, 2497, 2537, 2550, 2592, 2601,  
2630, 2631, 2636, 2637, 2646, 2657,  
2659, 2707, 2761, 2763, 2764, 2783,  
2847, 2872, 2911, 2928, 2929, 2944,  
2948, 2968, 2969, 3018, 3019, 3025,  
3054, 3055, 3062, 3099, 3100, 3101,  
3153, 3156

PRECIPITATION\_HISTORY  
(S: history\_precipitation)

PRECIPITATION\_HYDROLOGY  
(S: hydrology\_precipitation)

PRECIPITATION\_LAKE EFFECT ..... 23, 45, 186, 187, 308, 309,  
324, 326, 327, 447, 451, 453,  
454, 455, 456, 459, 461, 462,



PRECIPITATION_LAKE EFFECT (continued) ..	463,	464,	636,	637,	710,	719,
	834,	876,	964,	974,	1024,	1144,
	1186,	1187,	1231,	1233,	1243,	1264,
	1435,	1436,	1437,	1439,	1697,	1777,
	1843,	1914,	1998,	1999,	2087,	2110,
	2111,	2202,	2207,	2445,	2446,	2448,
	2631,	2636,	2637,	2707,	2944,	2948,
	3054,	3055,	3062			

PRECIPITATION_LAKE LEVELS .....	23,	129,	136,	168,	208,	224,
	246,	273,	274,	330,	359,	360,
	373,	376,	377,	378,	380,	381,
	382,	392,	432,	459,	537,	538,
	540,	613,	625,	688,	690,	694,
	696,	705,	710,	712,	713,	714,
	761,	913,	921,	941,	1020,	1024,
	1029,	1032,	1042,	1052,	1085,	1124,
	1151,	1153,	1185,	1204,	1264,	1266,
	1301,	1335,	1336,	1338,	1340,	1341,
	1342,	1344,	1393,	1424,	1462,	1520,
	1567,	1621,	1716,	1742,	1750,	1813,
	1822,	1874,	1921,	2050,	2115,	2127,
	2133,	2162,	2163,	2171,	2175,	2176,
	2191,	2198,	2201,	2206,	2207,	2208,
	2211,	2305,	2306,	2307,	2308,	2338,
	2360,	2426,	2537,	2630,	2761,	2763,
	2764,	2847,	2872,	2928,	2929,	2968,
	2969,	3101				

PRECIPITATION\_MODEL  
(S: model\_precipitation)

PRECIPITATION_SEASONAL VARIATION .....	11,	13,	23,	246,	273,	274,
	283,	319,	359,	360,	369,	370,
	376,	453,	454,	455,	459,	461,
	462,	463,	464,	690,	712,	713,
	913,	941,	1007,	1185,	1204,	1243,
	1338,	1340,	1341,	1424,	1439,	1502,
	1520,	1697,	1699,	1716,	1793,	1794,
	2100,	2111,	2197,	2201,	2202,	2212,
	2308,	2637,	2761,	2763,	3025	

PRECIPITATION_WATER BUDGET .....	2,	6,	168,	330,	359,	360,
	361,	373,	376,	377,	380,	538,
	606,	607,	688,	690,	696,	705,
	710,	712,	713,	941,	965,	1024,
	1104,	1105,	1124,	1153,	1204,	1266,
	1335,	1344,	1393,	1520,	1784,	1792,
	1793,	1794,	1813,	1999,	2050,	2115,
	2127,	2133,	2158,	2171,	2175,	2191,
	2198,	2208,	2209,	2211,	2338,	2360,
	2630,	2761,	2763,	3100,	3101,	3156

QUARTZ .....	416,	983,	1056,	1119,	2228,	2230,
	2511,	2536,	2538,	2731		

QUATERNARY (SA: history) .....	29,	60,	174,	310,	351,	395,
(SA: Pleistocene)	437,	438,	517,	764,	831,	856,
	898,	899,	919,	933,	1054,	1091,
	1093,	1094,	1096,	1178,	1209,	1454,

QUATERNARY (continued) .....	1531,	1555,	1615,	1616,	1617,	1618,
	1626,	1650,	1789,	1832,	2044,	2188,
	2289,	2341,	2499,	2720,	2975,	3028,
	3045,	3069,	3070,	3162		

RADIOCARBON (S: carbon-14)

RADIONUCLIDES .....	15,	16,	17,	18,	19,	20,
(SA: specific radionuclides)	81,	82,	85,	86,	90,	95,
(SA: deposition_radionuclides)	104,	142,	236,	351,	409,	411,
(SA: dispersion_radionuclides)	467,	470,	490,	491,	492,	496,
	497,	525,	551,	593,	599,	600,
	703,	771,	782,	784,	787,	788,
	789,	790,	792,	793,	794,	795,
	796,	797,	798,	801,	802,	804,
	898,	899,	900,	921,	932,	983,
	1024,	1093,	1095,	1136,	1184,	1213,
	1219,	1255,	1289,	1290,	1292,	1295,
	1324,	1397,	1403,	1429,	1430,	1446,
	1447,	1449,	1476,	1494,	1504,	1505,
	1539,	1544,	1551,	1552,	1598,	1599,
	1628,	1632,	1633,	1634,	1635,	1636,
	1677,	1709,	1723,	1743,	1744,	1745,
	1746,	1767,	1769,	1893,	1902,	1935,
	1938,	1939,	1940,	1941,	1942,	1943,
	1988,	1989,	1990,	1991,	1992,	1993,
	1994,	2023,	2040,	2044,	2045,	2046,
	2058,	2084,	2085,	2104,	2116,	2124,
	2136,	2137,	2139,	2140,	2149,	2180,
	2244,	2245,	2252,	2253,	2258,	2259,
	2261,	2262,	2263,	2264,	2266,	2267,
	2268,	2269,	2270,	2271,	2272,	2275,
	2330,	2331,	2332,	2404,	2471,	2491,
	2516,	2652,	2702,	2703,	2720,	2740,
	2886,	2894,	2924,	2956,	2957,	2988,
	2989,	2990,	2991,	2993,	2995,	2998,
	2999,	3001,	3002,	3003,	3004,	3064,
	3074,	3106,	3142,	3151,	3152,	3164,
	3165					

RADIONUCLIDES_SEDIMENTS .....	15,	16,	17,	18,	20,	86,
	90,	95,	142,	236,	351,	409,
	411,	467,	470,	490,	491,	492,
	496,	497,	551,	593,	600,	703,
	771,	782,	784,	787,	788,	789,
	790,	792,	793,	794,	795,	796,
	797,	798,	801,	802,	804,	921,
	932,	983,	1024,	1093,	1136,	1184,
	1213,	1219,	1255,	1289,	1292,	1295,
	1324,	1397,	1403,	1429,	1430,	1476,
	1494,	1504,	1505,	1539,	1552,	1599,
	1628,	1677,	1709,	1723,	1743,	1745,
	1902,	1935,	1938,	1939,	1940,	1941,
	1942,	1943,	1989,	1990,	1992,	1993,
	1994,	2023,	2040,	2044,	2045,	2046,
	2058,	2084,	2085,	2104,	2124,	2136,
	2137,	2139,	2140,	2244,	2245,	2258,
	2259,	2263,	2264,	2266,	2267,	2268,
	2269,	2270,	2271,	2272,	2275,	2404,
	2471,	2491,	2516,	2702,	2703,	2740,

RADIONUCLIDES_SEDIMENTS (continued) ....	2886,	2894,	2924,	2956,	2957,	2988,
	2989,	2990,	2991,	2993,	2995,	2999,
	3002,	3003,	3004,	3106,	3151,	3152
RADIUM .....	142,	791,	2136,	2244,	2264,	2956,
	2957					
RAIN (S: precipitation)						
RECESSION						
(S: bluffs_recession)						
(S: erosion)						
(S: shoreline_recession)						
RECHARGE .....	7,	319,	320,	366,	481,	624,
	690,	881,	976,	991,	1012,	1029,
	1252,	1306,	1307,	2311,	2312,	2325,
	2364,	2365,	2430,	2509,	2968,	3006,
	3166					
REDOX .....	16,	17,	19,	226,	227,	409,
	818,	950,	1024,	1404,	1884,	1885,
	2314,	2319,	2729,	2734		
REEFS .....	530,	531,	564,	734,	735,	993,
	1198,	1199,	1205,	1260,	1394,	1506,
	1508,	1509,	1566,	1750,	2025,	2057,
	2094,	2095,	2096,	2097,	2098,	2146,
	2344,	2534,	2535,	2556,	2594,	2595,
	2596,	2799,	2879,	2985,	2986,	2987,
	3084					
REGULATIONS_LAKE LEVELS .....	273,	274,	362,	365,	424,	691,
	870,	913,	1015,	1098,	1185,	1331,
	1336,	1338,	1340,	1341,	1359,	1432,
	1482,	1655,	1716,	1751,	1815,	2528,
	2565,	2761,	2763,	2938		
REGULATIONS_SHORELINE .....	77,	100,	1011,	1019,	1043,	1098,
	1261,	1271,	1291,	1828,	2288,	2453,
	2589,	2695,	2813,	3033,	3094,	3154
REMOTE SENSING .....	22,	24,	35,	110,	111,	113,
(SA: aerial photography)	116,	120,	122,	123,	177,	225,
(SA: circulation_remote sensing)	245,	253,	279,	280,	291,	292,
(SA: currents_remote sensing)	293,	297,	309,	324,	325,	327,
(SA: mapping_remote sensing)	374,	386,	387,	420,	431,	447,
	462,	463,	485,	501,	547,	649,
	681,	699,	711,	768,	876,	965,
	1004,	1066,	1067,	1126,	1186,	1190,
	1208,	1283,	1301,	1324,	1344,	1354,
	1412,	1424,	1435,	1436,	1438,	1439,
	1474,	1541,	1601,	1602,	1603,	1645,
	1646,	1648,	1670,	1678,	1680,	1681,
	1682,	1689,	1691,	1696,	1697,	1742,
	1777,	1857,	1872,	1891,	1896,	1980,
	2020,	2053,	2087,	2105,	2126,	2150,
	2207,	2226,	2237,	2257,	2310,	2337,
	2351,	2427,	2445,	2446,	2448,	2465,
	2513,	2514,	2542,	2544,	2638,	2643,
	2644,	2646,	2647,	2648,	2649,	2650,



REMOTE SENSING (continued) .....	2697,	2717,	2784,	2879,	3005,	3085,
	3086,	3108,	3158			
RESEARCH NEEDS_CIRCULATION .....	317,	1024,	1113,	1118,	1639,	1640,
	1781,	1880,	1891,	2133,	2932	
RESEARCH NEEDS_CURRENTS .....	317,	1024,	1113,	1118,	1639,	1640,
	1781,	1880,	1938			
RESEARCH NEEDS_GEOLOGY .....	96,	101,	130,	258,	372,	415,
	449,	598,	641,	649,	685,	828,
	890,	1020,	1024,	1035,	1129,	1136,
	1189,	1197,	1261,	1265,	1302,	1305,
	1324,	1345,	1357,	1781,	1799,	1813,
	1938,	2122,	2557,	2565,	2891,	2932,
	3067					
RESEARCH NEEDS_GROUNDWATER .....	366,	484,	1020,	1021,	1024,	1136,
	1305,	1324,	1813			
RESEARCH NEEDS_LAKE LEVELS .....	223,	397,	435,	458,	828,	1020,
	1024,	1118,	1265,	1343,	1344,	1359,
	1410,	1453,	1781,	1813,	1954,	2133,
	2352,	2557,	2565,	2891		
RESEARCH NEEDS_WATER BUDGET .....	435,	1024,	1343,	1344,	1359,	1813,
	2133					
RESEARCH NEEDS_WATER SUPPLY .....	223,	435,	649,	685,	686,	1021,
	1024,	1305,	1343			
RESUSPENSION .....	18,	94,	155,	230,	242,	443,
	444,	445,	473,	483,	510,	520,
	771,	772,	773,	782,	783,	784,
	789,	790,	796,	804,	816,	888,
	907,	949,	1069,	1111,	1136,	1146,
	1289,	1292,	1324,	1352,	1361,	1539,
	1604,	1609,	1610,	1611,	1612,	1639,
	1643,	1713,	1714,	1802,	1804,	1805,
	1884,	1916,	1938,	1939,	1940,	1941,
	1942,	1943,	1964,	1976,	1980,	1992,
	2062,	2124,	2186,	2229,	2270,	2274,
	2292,	2316,	2323,	2354,	2371,	2387,
	2408,	2491,	2591,	2659,	2702,	2703,
	2704,	2705,	2708,	2728,	2730,	2895,
	2897,	2924,	2956,	2957,	2988,	2990,
	2994,	2995,	2996,	3004,	3036	
REKETMENTS .....	30,	98,	99,	249,	269,	328,
(SA: coastal structures)	331,	333,	334,	335,	336,	337,
	338,	342,	343,	501,	527,	560,
	754,	918,	1071,	1098,	1099,	1270,
	1272,	1274,	1275,	1276,	1373,	1381,
	1382,	1383,	1398,	1499,	1736,	1816,
	1821,	1828,	2021,	2022,	2182,	2469,
	2695,	2757,	2775,	2793,	2794,	2833,
	2838,	2840,	2841,	2927,	2981a,	3114,
	3122,	3154				

REVIEW_CIRCULATION .....	34,	35,	36,	221,	622,	1024,
	1204,	1255,	2259,	2317,	2533,	2536,
	2725,	2964				
REVIEW_CURRENTS .....	34,	35,	36,	221,	405,	448,
	483,	622,	929,	1015,	1024,	1098,
	1213,	1255,	1895,	2533,	2541,	2547,
	2620,	2964				
REVIEW_GEOLOGY .....	30,	183,	194,	242,	258,	332,
	340,	345,	483,	533,	561,	763,
	929,	1009,	1013,	1018,	1019,	1020,
	1022,	1024,	1025,	1098,	1197,	1213,
	1215,	1217,	1225,	1302,	1316,	1322,
	1488,	1548,	1618,	1619,	1735,	1742,
	1743,	1848,	1887,	1895,	1913,	2122,
	2147,	2176,	2229,	2259,	2341,	2343,
	2469,	2533,	2536,	2541,	2583,	2587,
	2680,	2681,	2701,	2753,	2891,	3019,
	3064,	3105				
REVIEW_INORGANICS .....	87,	107,	194,	218,	221,	258,
	259,	345,	374,	397,	405,	448,
	466,	582,	686,	706,	707,	763,
	787,	838,	929,	950,	964,	1009,
	1024,	1028,	1213,	1255,	1316,	1322,
	1350,	1453,	1581,	1743,	1887,	1895,
	1913,	1966,	2046,	2063,	2090,	2147,
	2229,	2259,	2317,	2436,	2533,	2536,
	2546,	2547,	2601,	2620,	2663,	2753,
	2964,	2980,	2981b,	3064		
REVIEW_LAKE LEVELS .....	30,	183,	259,	271,	340,	397,
	405,	561,	693,	763,	1015,	1020,
	1024,	1028,	1098,	1204,	1213,	1217,
	1255,	1316,	1341,	1410,	1453,	1463,
	1548,	1567,	1742,	1848,	2090,	2091,
	2147,	2176,	2451,	2469,	2536,	2541,
	2583,	2681,	2891b			
REVIEW_LAND USE .....	258,	1009,	1014,	1018,	1019,	1022,
	1025,	1322,	1346,	1350,	1548,	2450,
	2601					
REVIEW_MINERALS .....	259,	1009,	1014,	1025,	2536,	3019,
	3064					
REVIEW_ORGANICS .....	107,	258,	259,	345,	405,	466,
	686,	706,	707,	763,	769,	838,
	964,	1024,	1025,	1028,	1255,	1316,
	1322,	1350,	1581,	1763,	1801,	1895,
	1966,	2046,	2063,	2090,	2546,	2547,
	2601,	2663,	2701			
REVIEW_WETLANDS .....	259,	397,	1019,	1028,	1114,	1293,
	1341,	1410,	1453,	2090,	2147,	3019
RIPRAP .....	558,	1266,	1301,	1369,	1566,	1872,
(SA: coastal structures)	2754,	2793,	2795,	2806,	2810	

RIVER (S: tributaries)

RIVER_PLUME .....	13,	14,	147,	155,	178,	229,
	443,	1118,	1391,	1491,	1610,	1805,
	1806,	2015,	2064,	2546,	2547,	2548,
	2615					

ROCKS (SA: bedrock) .....	438,	661,	867,	1075,	1540,	1799,
	1808,	1856,	2034,	2038,	2039,	2580,
	2940,	3107				

RUBIDIUM .....	1136,	2023,	2269,	2733		
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RUNOFF .....	53,	70,	93,	184,	189,	199,
(SA: model_runoff)	208,	218,	220,	223,	244,	273,
	274,	330,	361,	366,	370,	371,
	376,	380,	392,	404,	443,	457,
	467,	495,	510,	554,	592,	606,
	607,	609,	624,	632,	690,	694,
	696,	705,	710,	714,	748,	763,
	774,	810,	888,	912,	921,	1007,
	1012,	1019,	1020,	1024,	1028,	1029,
	1030,	1042,	1052,	1070,	1085,	1101,
	1104,	1105,	1123,	1124,	1126,	1136,
	1185,	1201,	1204,	1252,	1266,	1286,
	1292,	1304,	1306,	1307,	1316,	1319,
	1322,	1324,	1335,	1336,	1338,	1340,
	1341,	1346,	1347,	1348,	1351,	1352,
	1353,	1354,	1355,	1357,	1390,	1393,
	1395,	1419,	1420,	1422,	1471,	1490,
	1520,	1538,	1567,	1721,	1722,	1783,
	1784,	1792,	1793,	1801,	1807,	1826,
	1916,	1921,	1960,	1980,	1986,	1997,
	2028,	2029,	2030,	2100,	2101,	2127,
	2147,	2151,	2176,	2191,	2197,	2198,
	2204,	2211,	2218,	2246,	2252,	2253,
	2311,	2312,	2354,	2404,	2437,	2438,
	2469,	2497,	2562,	2571,	2600,	2601,
	2653,	2654,	2659,	2727,	2794,	2897,
	2907,	2944,	2956,	2957,	2968,	2969,
	3006,	3040,	3047,	3073,	3095,	3099,
	3101,	3156				

RUNOFF_SEASONAL VARIATION .....	189,	273,	274,	370,	376,	443,
	690,	1007,	1185,	1204,	1338,	1340,
	1341,	1520,	1783,	1793,	1986,	2100,
	2197,	2354,	2469,	2956,	2957	

SAND .....	9,	46,	61,	129,	135,	139,
(SA: grain_size_sand)	151,	166,	183,	185,	192,	193,
	197,	245,	246,	247,	249,	250,
	251,	252,	253,	257,	260,	261,
	269,	303,	313,	322,	328,	331,
	335,	336,	338,	339,	345,	348,
	385,	416,	419,	425,	427,	437,
	438,	446,	480,	481,	498,	515,
	516,	520,	550,	551,	552,	556,
	557,	559,	560,	594,	595,	597,
	600,	601,	602,	603,	604,	605,
	639,	649,	653,	654,	655,	656,



SAND (continued) .....	658,	661,	663,	664,	665,	666,
	667,	668,	672,	674,	677,	678,
	679,	680,	700,	728,	749,	752,
	754,	755,	757,	805,	806,	827,
	835,	842,	843,	844,	845,	847,
	849,	857,	890,	891,	895,	903,
	905,	907,	909,	910,	911,	913,
	916,	918,	920,	921,	925,	938,
	960,	961,	979,	996,	999,	1009,
	1019,	1050,	1060,	1064,	1065,	1070,
	1074,	1075,	1082,	1089,	1106,	1107,
	1148,	1167,	1173,	1174,	1178,	1179,
	1205,	1207,	1208,	1215,	1230,	1249,
	1250,	1252,	1265,	1272,	1274,	1275,
	1276,	1294,	1301,	1311,	1321,	1362,
	1365,	1369,	1374,	1377,	1378,	1381,
	1382,	1383,	1384,	1397,	1403,	1434,
	1458,	1470,	1483,	1484,	1485,	1486,
	1496,	1503,	1510,	1514,	1515,	1521,
	1528,	1545,	1546,	1547,	1548,	1551,
	1553,	1574,	1610,	1622,	1623,	1625,
	1630,	1634,	1635,	1645,	1647,	1648,
	1650,	1676,	1716,	1734,	1787,	1799,
	1800,	1809,	1810,	1816,	1819,	1828,
	1833,	1835,	1838,	1852,	1853,	1865,
	1908,	1963,	1973,	1982,	2022,	2023,
	2024,	2026,	2037,	2048,	2049,	2050,
	2051,	2052,	2059,	2086,	2109,	2112,
	2118,	2119,	2167,	2169,	2173,	2176,
	2182,	2214,	2236,	2239,	2241,	2251,
	2321,	2336,	2340,	2355,	2358,	2365,
	2396,	2440,	2441,	2472,	2475,	2499,
	2502,	2507,	2514,	2536,	2538,	2550,
	2559,	2560,	2594,	2595,	2596,	2602,
	2608,	2612,	2629,	2670,	2674,	2691,
	2694,	2695,	2696,	2711,	2714,	2715,
	2716,	2729,	2731,	2745,	2754,	2756,
	2758,	2762,	2772,	2773,	2780,	2793,
	2806,	2814,	2845,	2886,	2919,	2936,
	2949,	2968,	2969,	2974,	2981b,	3017,
	3019,	3020,	3021,	3027,	3034,	3049,
	3050,	3053,	3064,	3075,	3115,	3116,
	3117,	3118,	3119,	3121,	3123,	3125,
	3131					

SAND DUNES .....	9,	46,	129,	166,	185,	197,
	261,	303,	328,	385,	419,	425,
	437,	438,	551,	552,	557,	595,
	597,	601,	602,	603,	604,	605,
	639,	655,	664,	667,	674,	678,
	679,	680,	754,	835,	844,	847,
	857,	909,	916,	918,	920,	921,
	925,	938,	960,	961,	979,	1060,
	1064,	1065,	1075,	1106,	1107,	1148,
	1173,	1174,	1178,	1179,	1250,	1294,
	1311,	1362,	1365,	1369,	1384,	1434,
	1496,	1515,	1521,	1546,	1551,	1623,
	1625,	1676,	1800,	1809,	1828,	1833,
	1835,	1838,	2024,	2048,	2049,	2050,
	2051,	2052,	2086,	2109,	2112,	2173,

SAND DUNES (continued) .....	2176,	2182,	2236,	2239,	2241,	2251,
	2336,	2355,	2358,	2441,	2472,	2502,
	2507,	2550,	2629,	2714,	2715,	2716,
	2773,	2806,	2814,	2949,	2968,	2969,
	3027,	3049,	3050,	3053,	3115,	3117,
	3118,	3119,	3121,	3123,	3125,	3131
SANDSTONE .....	1553,	2428,	2469,	2973,	3006	
SATELLITE (S: remote sensing)						
SCANDIUM .....	528,	791,	803,	1055,	1136,	1650,
	2023,	2269,	2511,	2512,	2740	
SEAWALLS .....	30,	98,	99,	269,	328,	331,
(SA: coastal structures)	333,	334,	335,	336,	338,	476,
	527,	558,	805,	1003,	1071,	1098,
	1099,	1266,	1272,	1274,	1276,	1365,
	1816,	1821,	1828,	1987,	2182,	2695,
	2770,	2773,	2775,	2793,	2794,	2814,
	2833,	2838,	2840,	2841,	2927,	3042,
	3043,	3114,	3122,	3154		
SEDIMENT CORES .....	31,	95,	163,	164,	351,	393,
(SA: sediments)	395,	401,	470,	490,	491,	496,
	551,	564,	576,	600,	723,	724,
	782,	795,	818,	839,	891,	892,
	896,	948,	949,	954,	983,	1049,
	1136,	1143,	1146,	1205,	1207,	1209,
	1212,	1213,	1219,	1266,	1355,	1399,
	1407,	1408,	1430,	1445,	1465,	1545,
	1547,	1587,	1589,	1594,	1628,	1647,
	1651,	1652,	1653,	1677,	1862,	1863,
	1864,	1913,	1938,	1961,	1968,	1969,
	1971,	1973,	2021,	2040,	2044,	2045,
	2075,	2080,	2081,	2104,	2185,	2227,
	2228,	2244,	2263,	2264,	2266,	2267,
	2268,	2269,	2270,	2271,	2275,	2276,
	2321,	2400,	2490,	2524,	2525,	2555,
	2558,	2660,	2661,	2709,	2716,	2727,
	2729,	2732,	2747,	2976,	3067	
SEDIMENT TRAPS .....	51,	90,	230,	444,	579,	771,
	773,	784,	833,	860,	949,	981,
	1397,	1587,	1610,	1801,	1802,	1938,
	2124,	2371,	2413,	2491,	2492,	2493,
	2494,	2495,	2496,	2533,	2745,	2924,
	2956,	2988,	2992,	2994,	2996,	2997,
	3000					
SEDIMENT-WATER INTERFACE .....	31,	51,	230,	416,	427,	466,
	490,	491,	493,	496,	576,	769,
	773,	781,	783,	787,	789,	802,
	816,	837,	839,	947,	948,	951,
	954,	981,	1117,	1119,	1316,	1324,
	1352,	1400,	1498,	1505,	1536,	1539,
	1581,	1595,	1610,	1738,	1804,	1860,
	1885,	1887,	1891,	1935,	1938,	2185,
	2186,	2228,	2229,	2244,	2263,	2268,
	2272,	2275,	2314,	2318,	2319,	2324,

SEDIMENT-WATER INTERFACE (continued) ...	2490,	2491,	2504,	2546,	2661,	2667,
	2702,	2729,	2956,	2957,	2995,	2996,
	2999,	3037				
SEDIMENTATION .....	13,	14,	20,	58,	70,	90,
	95,	210,	236,	242,	409,	470,
	472,	473,	490,	491,	492,	496,
	515,	516,	550,	559,	561,	576,
	652,	655,	657,	663,	664,	666,
	667,	668,	670,	671,	672,	703,
	735,	759,	771,	780,	784,	788,
	794,	795,	796,	797,	799,	802,
	803,	804,	817,	818,	827,	852,
	860,	878,	880,	896,	907,	910,
	918,	920,	921,	926,	927,	970,
	980,	981,	984,	1013,	1019,	1029,
	1053,	1068,	1092,	1133,	1166,	1206,
	1207,	1301,	1316,	1348,	1396,	1397,
	1403,	1407,	1408,	1430,	1455,	1471,
	1483,	1484,	1485,	1486,	1587,	1589,
	1598,	1599,	1606,	1628,	1648,	1650,
	1653,	1671,	1677,	1742,	1743,	1744,
	1746,	1802,	1804,	1828,	1884,	1893,
	1916,	1917,	1918,	1938,	1983,	1991,
	2000,	2044,	2045,	2078,	2080,	2081,
	2082,	2084,	2085,	2090,	2104,	2112,
	2117,	2118,	2124,	2138,	2151,	2176,
	2227,	2229,	2244,	2245,	2259,	2263,
	2264,	2266,	2267,	2268,	2269,	2270,
	2287,	2292,	2316,	2334,	2335,	2336,
	2399,	2400,	2409,	2411,	2413,	2418,
	2471,	2491,	2493,	2497,	2501,	2521,
	2533,	2536,	2552,	2556,	2563,	2564,
	2569,	2658,	2660,	2661,	2664,	2689,
	2709,	2714,	2716,	2722,	2727,	2745,
	2764,	2879,	2897,	2924,	2939,	2941,
	2956,	2957,	2983,	2988,	2991,	2996,
	2997,	3013,	3014,	3045,	3049,	3073,
	3079,	3114,	3116,	3117,	3124,	3163
SEDIMENTATION_SEASONAL VARIATION .....	13,	90,	663,	664,	759,	818,
	1133,	1648,	2084,	2085,	2118,	2124,
	2400,	2491,	2501,	2569,	2956,	2957,
	3049					
SEDIMENTOLOGY .....	228,	345,	409,	444,	446,	491,
	515,	526,	561,	675,	676,	723,
	724,	759,	890,	910,	1050,	1053,
	1092,	1166,	1167,	1205,	1212,	1316,
	1455,	1604,	1609,	1630,	1650,	1710,
	1712,	1862,	1863,	2236,	2275,	2323,
	2469,	2715,	3045			
SEDIMENTS_CHEMISTRY (SA: geochemistry) ..	15,	16,	17,	18,	20,	31,
(SA: hydrocarbons_sediments)	32,	51,	57,	58,	67,	68,
(SA: inorganics_sediments)	75,	83,	86,	87,	89,	90,
(SA: metals_sediments)	91,	92,	93,	94,	95,	132,
(SA: organics_sediments)	133,	142,	147,	152,	155,	178,
(SA: phosphorus_sediments)	184,	190,	191,	198,	202,	219,
(SA: radionuclides_sediments)	220,	222,	226,	227,	236,	244,



SEDIMENTS_CHEMISTRY (continued) .....	258,	259,	303,	310,	311,	312,
	320,	345,	346,	351,	393,	397,
	407,	408,	409,	410,	411,	413,
	416,	418,	427,	443,	444,	445,
	466,	467,	469,	470,	474,	481,
	483,	484,	485,	489,	490,	491,
	492,	493,	494,	495,	496,	497,
	498,	510,	526,	528,	529,	532,
	551,	576,	579,	580,	582,	585,
	592,	593,	600,	623,	628,	660,
	698,	703,	706,	707,	728,	736,
	748,	763,	766,	769,	770,	771,
	773,	774,	775,	776,	779,	781,
	782,	783,	784,	785,	787,	788,
	789,	790,	792,	793,	794,	795,
	796,	797,	798,	799,	800,	801,
	802,	803,	804,	815,	816,	818,
	824,	827,	833,	879,	882,	883,
	888,	891,	892,	912,	913,	914,
	915,	921,	932,	933,	944,	945,
	949,	950,	951,	954,	955,	956,
	962,	968,	983,	1009,	1024,	1026,
	1036,	1048,	1049,	1050,	1053,	1054,
	1055,	1068,	1069,	1072,	1093,	1097,
	1101,	1111,	1116,	1117,	1119,	1131,
	1133,	1136,	1146,	1149,	1164,	1165,
	1169,	1184,	1189,	1192,	1201,	1213,
	1219,	1223,	1225,	1226,	1227,	1228,
	1230,	1253,	1255,	1261,	1268,	1279,
	1286,	1289,	1292,	1295,	1302,	1303,
	1316,	1318,	1319,	1320,	1321,	1322,
	1323,	1324,	1348,	1349,	1350,	1351,
	1352,	1354,	1355,	1357,	1361,	1366,
	1390,	1391,	1397,	1399,	1400,	1403,
	1404,	1429,	1430,	1431,	1441,	1453,
	1473,	1476,	1477,	1489,	1490,	1494,
	1498,	1504,	1505,	1507,	1526,	1527,
	1529,	1535,	1536,	1538,	1539,	1552,
	1557,	1558,	1561,	1565,	1580,	1581,
	1587,	1588,	1589,	1593,	1594,	1595,
	1596,	1599,	1609,	1611,	1628,	1630,
	1639,	1640,	1643,	1650,	1667,	1668,
	1677,	1679,	1681,	1700,	1709,	1712,
	1713,	1714,	1716,	1723,	1734,	1738,
	1743,	1745,	1755,	1756,	1781,	1785,
	1799,	1801,	1802,	1803,	1804,	1807,
	1813,	1820,	1826,	1828,	1839,	1842,
	1844,	1858,	1860,	1864,	1865,	1884,
	1885,	1887,	1891,	1895,	1902,	1907,
	1913,	1917,	1918,	1935,	1938,	1939,
	1940,	1941,	1942,	1943,	1963,	1964,
	1965,	1976,	1980,	1989,	1990,	1992,
	1993,	1994,	2000,	2006,	2022,	2023,
	2028,	2029,	2030,	2031,	2032,	2040,
	2044,	2045,	2046,	2058,	2061,	2062,
	2071,	2073,	2076,	2078,	2079,	2080,
	2081,	2082,	2084,	2085,	2088,	2104,
	2119,	2124,	2136,	2137,	2139,	2140,
	2151,	2178,	2181,	2185,	2186,	2227,
	2228,	2229,	2230,	2231,	2235,	2250,

SEDIMENTS\_CHEMISTRY (continued) ..... 2259, 2260, 2263, 2264, 2265, 2266,  
 2267, 2268, 2269, 2270, 2271, 2272,  
 2273, 2274, 2275, 2310, 2313, 2314,  
 2315, 2316, 2318, 2319, 2320, 2321,  
 2322, 2324, 2325, 2327, 2333, 2346,  
 2354, 2400, 2402, 2403, 2404, 2408,  
 2409, 2411, 2413, 2416, 2418, 2419,  
 2432, 2468, 2471, 2473, 2481, 2488,  
 2490, 2491, 2492, 2493, 2494, 2495,  
 2496, 2500, 2501, 2511, 2512, 2516,  
 2517, 2526, 2527, 2533, 2536, 2541,  
 2546, 2547, 2558, 2563, 2564, 2571,  
 2572, 2590, 2591, 2604, 2606, 2653,  
 2654, 2656, 2658, 2659, 2660, 2661,  
 2664, 2667, 2685, 2701, 2702, 2703,  
 2704, 2705, 2708, 2709, 2710, 2727,  
 2728, 2729, 2732, 2734, 2739, 2740,  
 2746, 2747, 2751, 2752, 2753, 2754,  
 2764, 2780, 2812, 2818, 2825, 2829,  
 2839, 2886, 2894, 2895, 2899, 2903,  
 2905, 2909, 2911, 2916, 2924, 2956,  
 2957, 2960, 2973, 2978, 2979, 2988,  
 2989, 2990, 2991, 2993, 2995, 2999,  
 3000, 3002, 3003, 3004, 3013, 3014,  
 3036, 3041, 3050, 3066, 3083, 3095,  
 3106, 3111, 3151, 3152, 3159

SEDIMENTS\_CIRCULATION  
 (S: circulation\_sediments)

SEDIMENTS\_DEPOSITION ..... 51, 57, 58, 83, 87, 93,  
 94, 95, 198, 236, 242, 311,  
 312, 407, 408, 409, 411, 442,  
 444, 445, 472, 473, 474, 489,  
 490, 493, 495, 532, 551, 594,  
 652, 655, 663, 664, 665, 667,  
 673, 736, 757, 759, 761, 771,  
 782, 783, 784, 789, 790, 793,  
 794, 795, 796, 797, 798, 799,  
 800, 801, 802, 804, 815, 816,  
 818, 831, 853, 878, 888, 896,  
 903, 909, 915, 926, 927, 962,  
 983, 997, 999, 1049, 1050, 1054,  
 1055, 1068, 1069, 1082, 1130, 1131,  
 1136, 1146, 1164, 1166, 1189, 1205,  
 1301, 1316, 1318, 1319, 1324, 1377,  
 1397, 1403, 1483, 1484, 1485, 1486,  
 1487, 1489, 1587, 1588, 1595, 1596,  
 1639, 1640, 1649, 1650, 1667, 1668,  
 1709, 1730, 1743, 1745, 1803, 1807,  
 1820, 1831, 1832, 1834, 1852, 1853,  
 1864, 1884, 1917, 1918, 1935, 1938,  
 1939, 1940, 1941, 1942, 1943, 1992,  
 2000, 2024, 2045, 2058, 2076, 2081,  
 2136, 2137, 2139, 2140, 2169, 2228,  
 2229, 2244, 2258, 2264, 2265, 2266,  
 2267, 2268, 2270, 2273, 2323, 2346,  
 2354, 2418, 2488, 2526, 2527, 2634,  
 2659, 2689, 2701, 2703, 2705, 2708,  
 2709, 2714, 2715, 2727, 2731, 2732,

SEDIMENTS_DEPOSITION (continued) .....	2756,	2762,	2939,	2990,	2993,	2995,
	3002,	3013,	3014,	3015,	3017,	3040,
	3106,	3114				

SEDIMENTS\_DISPERSION  
(S: dispersion\_sediments)

SEDIMENTS_DISTRIBUTION .....	8,	10,	15,	16,	20,	41,
	42,	86,	95,	132,	133,	139,
	147,	151,	178,	198,	219,	230,
	236,	390,	407,	408,	410,	442,
	446,	492,	526,	556,	579,	582,
	585,	593,	594,	677,	728,	735,
	759,	769,	790,	796,	797,	799,
	802,	827,	837,	860,	882,	883,
	890,	896,	906,	915,	918,	926,
	927,	949,	997,	998,	999,	1024,
	1055,	1068,	1075,	1081,	1082,	1119,
	1127,	1130,	1133,	1134,	1157,	1158,
	1159,	1226,	1227,	1228,	1249,	1266,
	1324,	1400,	1403,	1441,	1457,	1483,
	1484,	1486,	1494,	1503,	1504,	1512,
	1513,	1533,	1561,	1562,	1565,	1593,
	1595,	1596,	1630,	1647,	1652,	1653,
	1679,	1681,	1723,	1730,	1734,	1781,
	1795,	1844,	1862,	1863,	1864,	1865,
	1907,	1908,	1967,	1968,	1970,	1971,
	1972,	1975,	2000,	2021,	2023,	2026,
	2031,	2046,	2076,	2078,	2080,	2082,
	2136,	2140,	2165,	2166,	2167,	2169,
	2219,	2228,	2230,	2232,	2233,	2258,
	2263,	2265,	2266,	2267,	2269,	2270,
	2271,	2310,	2321,	2333,	2404,	2416,
	2484,	2488,	2491,	2494,	2495,	2496,
	2504,	2511,	2533,	2536,	2547,	2552,
	2555,	2556,	2559,	2560,	2613,	2617,
	2658,	2661,	2689,	2709,	2710,	2731,
	2745,	2919,	2981a,	2988,	2989,	2990,
	2993,	2995,	2999,	3024,	3041,	3075,
	3078,	3152				

SEDIMENTS_FLUX .....	17,	57,	58,	90,	230,	427,
	444,	467,	470,	478,	483,	495,
	496,	497,	576,	771,	772,	773,
	783,	784,	785,	790,	796,	800,
	802,	804,	815,	816,	888,	949,
	954,	981,	1050,	1132,	1164,	1184,
	1453,	1505,	1677,	1713,	1714,	1738,
	1802,	1884,	1885,	1887,	1917,	1918,
	1935,	1938,	1939,	1940,	1941,	1942,
	1943,	1964,	1976,	1992,	1993,	2045,
	2076,	2186,	2228,	2229,	2244,	2266,
	2267,	2269,	2270,	2274,	2275,	2354,
	2413,	2491,	2495,	2496,	2658,	2659,
	2660,	2661,	2685,	2686,	2704,	2705,
	2727,	2732,	2895,	2924,	2995,	3002

SEDIMENTS_GLACIAL .....	8,	10,	61,	129,	257,	320,
	351,	395,	446,	478,	481,	498,
	515,	524,	602,	605,	764,	807,



SEDIMENTS_GLACIAL (continued) .....	831,	832,	853,	856,	921,	933,
	968,	1056,	1060,	1063,	1089,	1092,
	1093,	1094,	1179,	1206,	1209,	1213,
	1215,	1265,	1299,	1316,	1369,	1399,
	1407,	1408,	1455,	1545,	1547,	1548,
	1552,	1555,	1618,	1628,	1647,	1649,
	1650,	1652,	1774,	1830,	1831,	1832,
	1834,	1852,	1853,	1862,	1863,	2105,
	2173,	2236,	2276,	2499,	2536,	2538,
	2541,	2773,	2950,	2973,	2975,	3022,
	3034,	3045,	3063,	3069,	3070,	3119,
	3141					

SEDIMENTS\_GRAIN SIZE  
(S: grain\_size\_sediments)

SEDIMENTS_HARBORS .....	67,	68,	75,	147,	152,	220,
	245,	313,	345,	346,	497,	556,
	732,	766,	891,	892,	912,	920,
	944,	945,	1013,	1026,	1054,	1080,
	1127,	1149,	1192,	1253,	1260,	1274,
	1275,	1289,	1323,	1361,	1366,	1378,
	1379,	1391,	1404,	1507,	1557,	1558,
	1594,	1839,	1847,	1848,	1850,	1895,
	1913,	2021,	2022,	2023,	2313,	2404,
	2504,	2546,	2547,	2604,	2606,	2658,
	2696,	2704,	2710,	2746,	2747,	2751,
	2752,	2753,	2765,	2767,	2768,	2780,
	2818,	2853,	2886,	2895,	2899,	2903,
	2905,	3013,	3014,	3034,	3066,	3129

SEDIMENTS\_HISTORY  
(S: history\_sediments)

SEDIMENTS\_HYDROCARBONS  
(S: hydrocarbons\_sediments)  
(S: organics\_sediments)

SEDIMENTS\_INORGANICS  
(S: inorganics\_sediments)

SEDIMENTS_LOADING .....	16,	31,	83,	87,	90,	91,
	92,	94,	132,	142,	152,	178,
	190,	191,	220,	244,	259,	443,
	470,	484,	485,	495,	496,	510,
	526,	532,	623,	706,	707,	748,
	757,	769,	771,	774,	794,	795,
	801,	802,	888,	891,	892,	913,
	915,	950,	962,	1024,	1026,	1111,
	1117,	1136,	1184,	1253,	1303,	1319,
	1324,	1348,	1349,	1350,	1352,	1354,
	1355,	1357,	1390,	1473,	1477,	1490,
	1498,	1538,	1539,	1643,	1709,	1713,
	1714,	1716,	1807,	1813,	1820,	1858,
	1895,	1917,	1918,	1935,	1938,	1939,
	1940,	1941,	1942,	1943,	1980,	2000,
	2028,	2029,	2030,	2061,	2062,	2104,
	2118,	2151,	2229,	2264,	2266,	2346,
	2354,	2404,	2409,	2471,	2478,	2488,
	2501,	2533,	2547,	2563,	2564,	2571,

SEDIMENTS_LOADING (continued) .....	2572,	2590,	2591,	2653,	2654,	2659,
	2660,	2664,	2701,	2702,	2703,	2704,
	2705,	2708,	2709,	2727,	2895,	2924,
	2956,	2957,	2960,	3013,	3014,	3095

SEDIMENTS\_MAPPING (S: mapping\_sediments)

SEDIMENTS\_METALS (S: metals\_sediments)

SEDIMENTS\_MODEL (S: model\_sediments)

SEDIMENTS\_ORGANICS  
(S: organics\_sediments)

SEDIMENTS\_PHOSPHORUS  
(S: phosphorus\_sediments)

SEDIMENTS\_PHYTOPLANKTON  
(S: phytoplankton\_sediments)

SEDIMENTS\_RADIONUCLIDES  
(S: radionuclides\_sediments)

SEDIMENTS_TRANSPORT .....	15,	18,	20,	30,	31,	57,
(SA: littoral drift)	86,	90,	91,	92,	95,	106,
	133,	167,	220,	242,	268,	320,
	328,	383,	386,	387,	397,	410,
	443,	444,	446,	467,	470,	510,
	520,	532,	556,	559,	603,	605,
	652,	663,	666,	668,	670,	671,
	672,	673,	675,	676,	677,	678,
	681,	706,	761,	769,	772,	784,
	785,	789,	795,	798,	811,	824,
	827,	835,	841,	842,	843,	845,
	848,	852,	870,	878,	886,	903,
	905,	906,	907,	909,	910,	911,
	926,	927,	979,	997,	998,	999,
	1017,	1019,	1060,	1069,	1074,	1080,
	1081,	1083,	1119,	1131,	1132,	1136,
	1149,	1159,	1164,	1166,	1178,	1207,
	1249,	1260,	1266,	1270,	1275,	1316,
	1319,	1324,	1352,	1355,	1374,	1377,
	1378,	1379,	1382,	1383,	1391,	1397,
	1398,	1452,	1483,	1484,	1485,	1486,
	1487,	1500,	1503,	1504,	1505,	1514,
	1533,	1538,	1542,	1543,	1562,	1578,
	1583,	1584,	1585,	1589,	1595,	1596,
	1604,	1609,	1610,	1612,	1639,	1640,
	1645,	1648,	1709,	1712,	1730,	1743,
	1781,	1785,	1795,	1801,	1804,	1847,
	1848,	1858,	1860,	1885,	1891,	1895,
	1896,	1935,	1938,	1939,	1940,	1941,
	1942,	1943,	1985,	2000,	2024,	2028,
	2029,	2030,	2051,	2056,	2069,	2078,
	2082,	2084,	2105,	2106,	2108,	2112,
	2118,	2120,	2129,	2139,	2173,	2182,
	2228,	2229,	2230,	2244,	2245,	2259,
	2323,	2325,	2327,	2328,	2335,	2371,
	2381,	2408,	2440,	2441,	2469,	2488,

SEDIMENTS_TRANSPORT (continued) .....	2589,	2634,	2658,	2659,	2670,	2689,
	2692,	2694,	2704,	2705,	2708,	2739,
	2745,	2755,	2756,	2757,	2760,	2762,
	2765,	2767,	2772,	2774,	2795,	2802,
	2806,	2810,	2829,	2838,	2843,	2844,
	2895,	2916,	2939,	2956,	2957,	2981a,
	2981b,	2983,	2990,	2996,	3016,	3106,
	3114,	3117,	3118,	3119,	3121,	3122,
	3123,	3126,	3127,	3128,	3129	
SEDIMENTS_TRIBUTARIES						
(S: tributaries_sediments)						
SEICHE .....	13,	14,	78,	136,	196,	406,
	614,	615,	621,	625,	704,	730,
	858,	862,	872,	1024,	1110,	1112,
	1141,	1142,	1204,	1207,	1213,	1220,
	1241,	1295,	1336,	1340,	1341,	1360,
	1368,	1376,	1387,	1388,	1392,	1395,
	1410,	1427,	1443,	1462,	1520,	1638,
	1663,	1724,	1750,	1786,	1827,	1837,
	1880,	1881,	1882,	1883,	1886,	1889,
	1890,	1891,	1894,	1897,	1898,	1899,
	1900,	1932,	2050,	2142,	2143,	2160,
	2171,	2222,	2352,	2388,	2390,	2391,
	2394,	2395,	2457,	2463,	2474,	2491,
	2536,	2806,	2884,	2962,	3132	
SEISMIC (SA: geophysics) .....	257,	262,	303,	391,	398,	422,
(SA: mapping_seismic)	867,	1324,	1415,	1651,	1652,	1653,
	1864,	2236,	2250,	2525,	2685,	3020,
	3021,	3045,	3103,	3104,	3105,	3106,
	3107,	3109				
SELENIUM .....	31,	746,	803,	824,	1029,	1085,
(Note: selenium is not indexed	1136,	1289,	1292,	1489,	1594,	2023,
with the metals as it is a nonmetal)	2404,	2490,	2739,	3059		
SHIPPING .....	179,	188,	220,	258,	307,	433,
(SA: navigation)	587,	643,	644,	649,	685,	686,
(SA: history_shipping)	692,	717,	869,	874,	1014,	1015,
	1030,	1033,	1034,	1041,	1097,	1145,
	1182,	1251,	1264,	1304,	1329,	1334,
	1409,	1416,	1563,	1629,	1702,	1729,
	1741,	1758,	1822,	1824,	1826,	1841,
	1919,	1978,	1995,	2007,	2033,	2067,
	2405,	2422,	2423,	2424,	2425,	2630,
	2635,	2718,	2777,	2778,	2791,	2821,
	2830,	2851,	2852,	2868,	2879,	2892,
	2932,	3011,	3034,	3146		
SHORELINE .....	9,	10,	23,	25,	28,	30,
	46,	47,	48,	50,	60,	61,
	62,	63,	69,	71,	72,	77,
	80,	96,	97,	98,	100,	102,
	103,	104,	114,	129,	165,	166,
	167,	175,	181,	183,	185,	186,
	187,	192,	193,	196,	197,	201,
	205,	209,	223,	245,	247,	248,
	249,	250,	252,	253,	254,	255,
	260,	261,	268,	269,	275,	281,



SHORELINE (continued) .....	282,	322,	323,	324,	326,	327,
	328,	331,	332,	334,	335,	337,
	338,	339,	341,	342,	343,	344,
	347,	348,	349,	351,	352,	353,
	354,	363,	385,	386,	387,	388,
	395,	398,	400,	402,	403,	412,
	419,	423,	425,	428,	429,	430,
	434,	436,	437,	438,	442,	465,
	476,	483,	486,	487,	488,	498,
	501,	507,	508,	509,	511,	512,
	515,	516,	527,	549,	550,	551,
	552,	555,	556,	558,	559,	560,
	561,	562,	563,	565,	567,	577,
	586,	587,	590,	595,	597,	599,
	601,	602,	603,	604,	605,	619,
	629,	630,	631,	639,	640,	642,
	644,	645,	649,	653,	655,	656,
	658,	659,	666,	667,	668,	672,
	674,	675,	676,	679,	680,	681,
	693,	697,	705,	718,	722,	740,
	752,	753,	754,	755,	756,	757,
	761,	806,	807,	809,	810,	811,
	812,	819,	835,	841,	843,	844,
	846,	847,	848,	850,	851,	852,
	853,	854,	869,	886,	887,	889,
	890,	893,	898,	899,	900,	903,
	909,	911,	916,	917,	921,	925,
	926,	927,	936,	937,	938,	960,
	961,	966,	970,	979,	985,	986,
	988,	990,	999,	1003,	1011,	1017,
	1018,	1019,	1020,	1025,	1030,	1031,
	1037,	1038,	1042,	1043,	1060,	1063,
	1064,	1065,	1070,	1071,	1073,	1074,
	1075,	1076,	1078,	1080,	1081,	1082,
	1083,	1084,	1086,	1087,	1089,	1092,
	1094,	1095,	1098,	1099,	1100,	1106,
	1107,	1126,	1128,	1148,	1155,	1159,
	1162,	1163,	1166,	1167,	1173,	1174,
	1176,	1177,	1178,	1182,	1186,	1187,
	1188,	1249,	1250,	1257,	1259,	1261,
	1262,	1263,	1264,	1265,	1266,	1267,
	1270,	1271,	1272,	1274,	1275,	1276,
	1279,	1280,	1285,	1288,	1291,	1296,
	1297,	1298,	1301,	1310,	1311,	1316,
	1332,	1339,	1355,	1362,	1364,	1365,
	1369,	1374,	1378,	1379,	1380,	1381,
	1382,	1383,	1384,	1389,	1398,	1410,
	1412,	1413,	1424,	1425,	1426,	1428,
	1434,	1435,	1452,	1460,	1463,	1469,
	1470,	1480,	1485,	1486,	1496,	1497,
	1499,	1510,	1511,	1512,	1513,	1514,
	1515,	1521,	1523,	1524,	1525,	1528,
	1530,	1531,	1533,	1540,	1542,	1543,
	1548,	1549,	1551,	1552,	1553,	1555,
	1556,	1559,	1564,	1574,	1578,	1579,
	1584,	1586,	1613,	1615,	1616,	1617,
	1618,	1621,	1628,	1632,	1633,	1636,
	1645,	1671,	1676,	1689,	1693,	1696,
	1698,	1701,	1731,	1735,	1736,	1742,

SHORELINE (continued) .....	1808,	1809,	1816,	1818,	1819,	1825,
	1827,	1828,	1829,	1833,	1834,	1835,
	1838,	1842,	1843,	1847,	1848,	1850,
	1856,	1858,	1872,	1875,	1876,	1878,
	1889,	1977,	1978,	1981,	1984,	1985,
	1987,	1996,	2026,	2048,	2049,	2050,
	2051,	2052,	2055,	2056,	2060,	2066,
	2070,	2086,	2087,	2089,	2099,	2105,
	2106,	2107,	2108,	2112,	2120,	2129,
	2131,	2148,	2173,	2174,	2175,	2180,
	2182,	2214,	2229,	2236,	2239,	2240,
	2241,	2251,	2257,	2288,	2289,	2327,
	2328,	2331,	2332,	2342,	2348,	2355,
	2356,	2358,	2368,	2369,	2426,	2439,
	2440,	2441,	2446,	2447,	2450,	2452,
	2453,	2463,	2464,	2466,	2469,	2472,
	2475,	2476,	2478,	2489,	2490,	2499,
	2503,	2507,	2513,	2514,	2533,	2538,
	2568,	2580,	2581,	2585,	2589,	2608,
	2609,	2610,	2612,	2629,	2633,	2635,
	2637,	2639,	2652,	2657,	2668,	2669,
	2671,	2674,	2687,	2691,	2692,	2693,
	2694,	2695,	2696,	2697,	2714,	2715,
	2716,	2720,	2736,	2737,	2755,	2756,
	2757,	2758,	2759,	2760,	2762,	2765,
	2766,	2767,	2768,	2769,	2770,	2771,
	2772,	2774,	2775,	2781,	2785,	2786,
	2789,	2793,	2794,	2795,	2797,	2800,
	2801,	2802,	2804,	2806,	2808,	2809,
	2810,	2811,	2813,	2815,	2817,	2819,
	2822,	2823,	2824,	2827,	2831,	2832,
	2833,	2842,	2843,	2844,	2845,	2849,
	2850,	2853,	2854,	2858,	2870,	2926,
	2939,	2941,	2942,	2949,	2973,	2981a,
	2981b,	2982,	2983,	3008,	3018,	3027,
	3029,	3030,	3032,	3033,	3034,	3042,
	3043,	3048,	3049,	3050,	3053,	3069,
	3070,	3074,	3086,	3088,	3091,	3094,
	3106,	3112,	3114,	3115,	3116,	3117,
	3118,	3120,	3121,	3122,	3123,	3124,
	3129,	3131,	3137,	3140,	3146,	3154,
	3160,	3161,	3165			

SHORELINE_EROSION .....	9,	30,	47,	48,	61,	63,
(SA: erosion)	71,	77,	80,	96,	97,	98,
	100,	102,	103,	129,	167,	181,
	183,	192,	193,	245,	248,	249,
	250,	252,	253,	254,	268,	269,
	282,	322,	328,	331,	332,	334,
	335,	337,	338,	339,	341,	342,
	344,	351,	386,	387,	388,	402,
	425,	429,	430,	434,	436,	437,
	438,	465,	476,	486,	487,	488,
	498,	501,	507,	508,	511,	516,
	527,	551,	555,	556,	558,	559,
	560,	561,	563,	565,	567,	603,
	605,	629,	630,	631,	639,	640,
	644,	649,	655,	656,	658,	659,
	666,	667,	672,	674,	675,	676,
	679,	680,	681,	693,	697,	705,

SHORELINE_EROSION (continued) .....	718,	740,	752,	754,	755,	756,
	757,	761,	806,	807,	809,	810,
	811,	812,	843,	844,	848,	869,
	886,	887,	890,	903,	909,	916,
	917,	921,	979,	1003,	1017,	1019,
	1020,	1025,	1030,	1031,	1037,	1038,
	1042,	1043,	1060,	1063,	1064,	1065,
	1070,	1076,	1078,	1080,	1081,	1082,
	1083,	1084,	1086,	1087,	1098,	1099,
	1100,	1126,	1159,	1166,	1167,	1176,
	1178,	1182,	1257,	1259,	1261,	1264,
	1265,	1266,	1270,	1271,	1272,	1274,
	1275,	1276,	1279,	1280,	1285,	1296,
	1297,	1298,	1301,	1311,	1316,	1332,
	1339,	1355,	1364,	1365,	1369,	1374,
	1378,	1379,	1398,	1424,	1425,	1426,
	1428,	1452,	1469,	1470,	1485,	1486,
	1499,	1511,	1513,	1521,	1528,	1530,
	1533,	1542,	1543,	1548,	1549,	1556,
	1574,	1578,	1579,	1584,	1618,	1628,
	1645,	1676,	1735,	1736,	1750,	1781,
	1809,	1816,	1819,	1827,	1828,	1829,
	1833,	1834,	1842,	1847,	1850,	1858,
	1977,	1978,	1984,	1987,	2048,	2050,
	2051,	2052,	2056,	2070,	2105,	2106,
	2107,	2108,	2120,	2129,	2131,	2148,
	2173,	2174,	2175,	2182,	2214,	2229,
	2236,	2240,	2288,	2327,	2328,	2355,
	2440,	2441,	2452,	2469,	2475,	2476,
	2478,	2489,	2490,	2499,	2538,	2568,
	2589,	2608,	2609,	2610,	2633,	2635,
	2671,	2691,	2692,	2693,	2694,	2695,
	2696,	2697,	2714,	2715,	2716,	2720,
	2755,	2756,	2757,	2758,	2759,	2760,
	2762,	2765,	2766,	2767,	2768,	2769,
	2771,	2772,	2774,	2775,	2781,	2786,
	2793,	2794,	2795,	2797,	2800,	2801,
	2802,	2804,	2806,	2808,	2809,	2810,
	2813,	2817,	2819,	2822,	2823,	2824,
	2827,	2831,	2833,	2843,	2845,	2853,
	2870,	2926,	2939,	2941,	2942,	2949,
	2983,	3027,	3030,	3032,	3034,	3049,
	3069,	3070,	3088,	3094,	3106,	3112,
	3114,	3116,	3117,	3118,	3120,	3121,
	3122,	3123,	3124,	3129,	3146,	3154,
	3165					

SHORELINE_HISTORY .....	10,	60,	61,	104,	129,	165,
(SA: history_coastal)	166,	175,	181,	183,	192,	197,
	247,	255,	260,	261,	275,	281,
	326,	332,	343,	347,	349,	351,
	352,	353,	354,	363,	395,	437,
	438,	476,	486,	498,	507,	508,
	515,	550,	552,	559,	586,	587,
	595,	599,	601,	602,	603,	605,
	806,	807,	810,	819,	850,	851,
	853,	854,	889,	898,	899,	900,
	921,	925,	926,	927,	937,	938,
	961,	970,	985,	986,	988,	990,



SHORELINE_HISTORY (continued) .....	1092,	1094,	1095,	1159,	1167,	1178,
	1188,	1264,	1265,	1276,	1301,	1310,
	1316,	1369,	1434,	1460,	1463,	1496,
	1497,	1521,	1531,	1540,	1543,	1548,
	1549,	1551,	1552,	1555,	1559,	1615,
	1616,	1617,	1618,	1621,	1628,	1632,
	1633,	1636,	1749,	1750,	1828,	1834,
	1856,	1978,	1996,	2060,	2099,	2105,
	2106,	2108,	2173,	2174,	2175,	2180,
	2182,	2236,	2289,	2327,	2331,	2332,
	2342,	2355,	2439,	2450,	2476,	2490,
	2499,	2580,	2585,	2652,	2668,	2669,
	2674,	2694,	2696,	2697,	2714,	2715,
	2716,	2720,	2757,	2765,	2768,	2793,
	3034,	3049,	3069,	3070,	3074,	3121,
	3131,	3140,	3165			
SHORELINE_LAKE BREEZE .....	1413,	1693,	1875,	1876,	1878,	2055
(SA: lake breeze)						
SHORELINE_LAKE LEVELS .....	23,	30,	61,	80,	129,	175,
(SA: lake levels)	181,	183,	192,	196,	223,	248,
	252,	268,	269,	328,	349,	351,
	353,	354,	363,	386,	387,	395,
	402,	403,	434,	437,	476,	509,
	516,	552,	558,	561,	563,	586,
	587,	603,	604,	605,	644,	681,
	693,	705,	740,	754,	761,	810,
	844,	921,	970,	979,	985,	986,
	990,	999,	1003,	1020,	1030,	1042,
	1060,	1063,	1071,	1076,	1080,	1081,
	1082,	1083,	1084,	1086,	1087,	1094,
	1095,	1098,	1163,	1173,	1178,	1182,
	1264,	1265,	1266,	1285,	1301,	1316,
	1332,	1339,	1365,	1369,	1381,	1382,
	1383,	1410,	1424,	1426,	1463,	1485,
	1496,	1497,	1499,	1528,	1542,	1548,
	1549,	1551,	1552,	1584,	1617,	1621,
	1628,	1742,	1750,	1781,	1827,	1848,
	1850,	1889,	1996,	2050,	2066,	2105,
	2106,	2107,	2108,	2129,	2175,	2182,
	2328,	2426,	2463,	2469,	2476,	2478,
	2581,	2674,	2691,	2694,	2714,	2715,
	2716,	2720,	2760,	2766,	2770,	2775,
	2781,	2789,	2794,	2806,	2809,	2810,
	2831,	2842,	2849,	2850,	2949,	2981a,
	2981b,	3027,	3030,	3049,	3050,	3053,
	3114,	3116,	3120,	3121,	3131,	3140
SHORELINE_LAND USE .....	69,	72,	97,	323,	412,	425,
(SA: land use)	486,	507,	508,	552,	559,	649,
	1011,	1018,	1019,	1025,	1030,	1126,
	1128,	1166,	1167,	1174,	1257,	1259,
	1262,	1264,	1267,	1280,	1310,	1339,
	1355,	1380,	1524,	1525,	1543,	1548,
	1586,	1828,	1987,	2148,	2236,	2288,
	2348,	2450,	2757,	2758,	2760,	2793,
	2795,	2797,	2813,	2832,	2941,	2942,
	2949,	3027,	3032,	3094		

SHORELINE\_MAPPING  
(S: mapping\_shoreline)

SHORELINE\_RECESSION ..... 9, 30, 98, 100, 183, 245,  
(SA: bluffs\_recession) 249, 252, 253, 268, 269, 331,  
(SA: shoreline\_erosion) 338, 342, 344, 386, 387, 388,  
476, 516, 555, 556, 561, 565,  
603, 605, 659, 679, 740, 754,  
755, 806, 807, 809, 810, 812,  
903, 979, 1017, 1043, 1070, 1080,  
1083, 1098, 1099, 1159, 1266, 1270,  
1271, 1272, 1274, 1275, 1276, 1301,  
1316, 1424, 1425, 1426, 1428, 1470,  
1485, 1530, 1542, 1543, 1584, 1628,  
1645, 1736, 1750, 1781, 1816, 1858,  
1987, 2106, 2107, 2108, 2120, 2129,  
2131, 2182, 2214, 2440, 2452, 2476,  
2608, 2609, 2610, 2691, 2694, 2697,  
2757, 2758, 2760, 2762, 2765, 2766,  
2768, 2795, 2800, 2843, 2845, 3034,  
3049, 3094, 3106, 3120, 3121, 3122,  
3123, 3154

SHORELINE\_RECREATION ..... 69, 72, 96, 223, 249, 250,  
253, 412, 486, 488, 507, 508,  
560, 649, 1018, 1019, 1030, 1037,  
1073, 1128, 1174, 1182, 1257, 1262,  
1264, 1279, 1311, 1332, 1339, 1355,  
1369, 1380, 1382, 1383, 1460, 1586,  
1818, 1987, 2327, 2453, 2693, 2696,  
2759, 2765, 2766, 2768, 2789, 2797,  
2815, 2832, 2842, 2845, 2849, 2981,  
3027

SHORELINE\_STRATIGRAPHY ..... 9, 10, 247, 275, 351, 395,  
437, 498, 515, 516, 550, 551,  
603, 605, 639, 752, 755, 756,  
757, 806, 807, 850, 851, 853,  
854, 889, 898, 921, 1064, 1065,  
1089, 1092, 1094, 1316, 1362, 1469,  
1470, 1531, 1548, 1551, 1555, 1645,  
1676, 1742, 1781, 1833, 1834, 1835,  
1996, 2060, 2105, 2236, 2289, 2439,  
2440, 2441, 2499, 2585, 2657, 2714,  
2973, 3049, 3053, 3106, 3140

SHORELINE\_URBAN ..... 50, 223, 412, 486, 507, 508,  
549, 642, 1011, 1332, 1380, 1543,  
1586, 1698, 1818, 2327, 2450, 2770,  
2858, 3008

SHOREWOOD\_MEMBER ..... 832

SILT ..... 18, 135, 139, 151, 163, 247,  
257, 313, 416, 446, 498, 516,  
520, 556, 594, 600, 635, 728,  
752, 757, 806, 827, 891, 920,  
1053, 1082, 1089, 1167, 1199, 1275,  
1394, 1470, 1545, 1547, 1548, 1549,

SILT (continued) .....	1652,	1734,	1787,	1800,	1852,	1853,
	1864,	1865,	1908,	2023,	2025,	2118,
	2119,	2167,	2169,	2321,	2323,	2442,
	2499,	2526,	2536,	2559,	2594,	2595,
	2596,	2729,	2731,	2895,	2994,	2996,
	3019,	3075				
SILVER .....	312,	526,	891,	892,	1009,	1068,
	1085,	1136,	1253,	1286,	2490,	2733,
	2739					
SNAILS .....	164,	176,	346,	635,	827,	901,
	932,	1228,	1289,	1292,	1295,	1312,
	1483,	1485,	1711,	1796,	1797,	1907,
	1909,	1972,	1975,	1994,	2068,	2403,
	3076					
SNOW .....	23,	45,	108,	109,	110,	111,
(SA: precipitation)	123,	128,	169,	177,	186,	187,
	212,	285,	286,	293,	295,	297,
	324,	326,	327,	369,	453,	454,
	455,	462,	637,	719,	974,	1066,
	1067,	1153,	1186,	1187,	1204,	1231,
	1233,	1342,	1435,	1436,	1437,	1439,
	1473,	1696,	1697,	1742,	1777,	1803,
	1843,	1914,	1929,	2087,	2101,	2111,
	2297,	2300,	2301,	2302,	2303,	2445,
	2446,	2448,	2537,	2550,	2636,	2637,
	2707,	2948,	3019,	3025,	3054,	3062
SOILS .....	91,	129,	192,	193,	247,	251,
	331,	437,	475,	532,	728,	748,
	752,	805,	935,	936,	1010,	1025,
	1166,	1335,	1390,	1396,	1471,	1490,
	1622,	1635,	1679,	1827,	1835,	1860,
	1997,	2049,	2147,	2181,	2237,	2239,
	2251,	2342,	2522,	2538,	2599,	2602,
	2657,	2722,	2760,	2768,	2780,	2897,
	2916,	2979,	3005,	3019,	3027,	3087,
	3111					
STEPHANODISCUS (SA: diatoms) .....	154,	159,	638,	967,	1051,	1194,
	1312,	1450,	1491,	1560,	1570,	1718,
	1720,	1760,	1782,	2415,	2491,	2619,
	2621,	2624,	2625,	2698,	2699,	2700,
	2900,	2964				
STORMS .....	30,	37,	38,	39,	98,	106,
	138,	201,	212,	224,	269,	273,
	309,	324,	325,	327,	334,	451,
	453,	454,	455,	456,	457,	462,
	463,	464,	483,	572,	625,	636,
	637,	655,	660,	661,	666,	671,
	673,	674,	675,	676,	678,	717,
	729,	761,	813,	903,	905,	907,
	909,	921,	931,	957,	964,	1024,
	1082,	1159,	1186,	1187,	1231,	1241,
	1301,	1316,	1406,	1427,	1428,	1435,
	1436,	1437,	1439,	1487,	1528,	1577,
	1637,	1662,	1666,	1683,	1699,	1730,



STORMS (continued) .....	1781,	1859,	1877,	1891,	1896,	1914,
	1932,	2029,	2087,	2121,	2123,	2142,
	2143,	2154,	2187,	2214,	2270,	2387,
	2440,	2457,	2463,	2592,	2631,	2639,
	2640,	2641,	2692,	2707,	2712,	2755,
	2757,	2765,	2768,	2773,	2794,	2802,
	2806,	2879,	2944,	2977,	3120,	3126,
	3128					

STRATIFICATION .....	136,	203,	206,	212,	215,	238,
(SA: thermocline)	239,	241,	317,	404,	416,	426,
	444,	468,	503,	510,	616,	617,
	783,	818,	859,	860,	861,	865,
	947,	948,	1103,	1104,	1105,	1119,
	1164,	1243,	1244,	1254,	1289,	1292,
	1295,	1308,	1405,	1467,	1468,	1522,
	1582,	1598,	1599,	1637,	1638,	1689,
	1724,	1725,	1728,	1836,	1837,	1880,
	1882,	1884,	1886,	1889,	1890,	1891,
	1893,	1894,	1898,	1909,	2009,	2010,
	2011,	2012,	2015,	2018,	2020,	2132,
	2221,	2228,	2256,	2290,	2317,	2368,
	2371,	2390,	2395,	2397,	2399,	2400,
	2419,	2420,	2421,	2467,	2491,	2620,
	2644,	2646,	2655,	2727,	2884,	2954,
	2958,	2963,	2977,	2990,	2995,	3001,
	3160					

STRATIGRAPHY .....	8,	9,	10,	59,	123,	163,
(SA: mapping_stratigraphy)	164,	174,	247,	251,	275,	294,
(SA: shoreline_stratigraphy)	351,	390,	395,	437,	498,	515,
	516,	517,	524,	526,	528,	550,
	551,	557,	600,	603,	605,	639,
	723,	724,	752,	755,	756,	757,
	764,	806,	807,	818,	832,	850,
	851,	853,	854,	855,	856,	867,
	889,	896,	898,	919,	921,	934,
	935,	1044,	1049,	1054,	1055,	1056,
	1064,	1065,	1089,	1090,	1092,	1093,
	1094,	1215,	1299,	1316,	1324,	1362,
	1399,	1469,	1470,	1531,	1544,	1545,
	1547,	1548,	1550,	1551,	1554,	1555,
	1596,	1645,	1647,	1650,	1651,	1652,
	1653,	1676,	1742,	1781,	1831,	1832,
	1833,	1834,	1835,	1852,	1853,	1910,
	1983,	1996,	2060,	2105,	2178,	2227,
	2236,	2267,	2268,	2289,	2336,	2439,
	2440,	2441,	2442,	2498,	2499,	2531,
	2532,	2585,	2598,	2657,	2714,	2944,
	2973,	2975,	2976,	3022,	3045,	3049,
	3053,	3063,	3064,	3104,	3106,	3107,
	3109,	3140				

STRONTIUM .....	132,	142,	178,	534,	624,	782,
	791,	1136,	1594,	1598,	1599,	1709,
	1744,	1745,	1865,	1935,	1938,	2140,
	2261,	2265,	2273,	2316,	2317,	2320,
	2321,	2733,	2990,	2991,	2993,	2999,
	3152					

SUBMARINE STUDIES .....	66,	2168,	2556,	2560,	2919	
SUMMARY (SA: review)						
SUMMARY_CIRCULATION .....	221,	1204,	1663,	1781,	1824,	2216
SUMMARY_CURRENTS .....	221,	303,	405,	448,	1304,	1663,
	1781,	1824,	1944,	2182,	2595,	2696,
	2768					
SUMMARY_GEOLOGY .....	200,	258,	303,	323,	402,	485,
	486,	629,	641,	770,	828,	831,
	1008,	1023,	1025,	1029,	1197,	1214,
	1265,	1316,	1348,	1353,	1415,	1433,
	1469,	1488,	1549,	1551,	1594,	1781,
	1817,	1824,	1828,	1913,	2070,	2151,
	2174,	2182,	2216,	2236,	2283,	2334,
	2487,	2595,	2653,	2679,	2695,	2696,
	2697,	2701,	2751,	2753,	2768,	2831,
	2901,	2918,	2920,	2921,	2922,	2923,
	2934,	2944,	3019,	3063		
SUMMARY_HYDROLOGY .....	6,	221,	303,	484,	485,	688,
	693,	705,	710,	829,	1029,	1030,
	1197,	1204,	1304,	1336,	1340,	1359,
	1462,	1490,	1673,	1716,	1817,	2216,
	2360,	2847,	2879,	2911,	2938,	2944,
	3019,	3101				
SUMMARY_INORGANICS .....	6,	85,	142,	216,	220,	221,
	244,	258,	303,	405,	448,	484,
	485,	525,	770,	804,	1029,	1111,
	1198,	1304,	1316,	1353,	1416,	1489,
	1490,	1529,	1551,	1594,	1716,	1781,
	1913,	1923,	2132,	2151,	2216,	2295,
	2487,	2653,	2723,	2751,	2753	
SUMMARY_LAKE LEVELS .....	303,	402,	405,	688,	693,	705,
	710,	765,	828,	1008,	1029,	1030,
	1087,	1204,	1265,	1316,	1336,	1340,
	1358,	1359,	1433,	1462,	1549,	1551,
	1659,	1663,	1673,	1705,	1716,	1781,
	1824,	1868,	1952,	2182,	2207,	2334,
	2360,	2679,	2831,	2847,	2876,	2877,
	2938,	3101				
SUMMARY_LAND USE .....	85,	220,	244,	258,	323,	484,
	485,	486,	828,	1011,	1023,	1025,
	1027,	1030,	1346,	1348,	1353,	1490,
	1828,	2236,	2653,	2879		
SUSPENDED SEDIMENTS						
(S: suspended solids)						
SUSPENDED SOLIDS .....	13,	14,	56,	89,	90,	91,
	92,	155,	159,	184,	189,	224,
	226,	227,	230,	243,	406,	444,
	446,	623,	624,	698,	728,	748,
	770,	771,	772,	789,	823,	825,
	912,	1069,	1111,	1115,	1116,	1119,

SUSPENDED SOLIDS (continued) .....	1126,	1131,	1132,	1133,	1134,	1146,
	1184,	1322,	1324,	1354,	1355,	1397,
	1490,	1538,	1557,	1587,	1595,	1596,
	1609,	1610,	1804,	1859,	1980,	1989,
	2000,	2029,	2030,	2083,	2084,	2118,
	2140,	2151,	2170,	2228,	2229,	2249,
	2292,	2329,	2353,	2357,	2431,	2466,
	2491,	2501,	2547,	2567,	2600,	2601,
	2605,	2606,	2607,	2653,	2654,	2658,
	2701,	2702,	2703,	2704,	2705,	2709,
	2739,	2751,	2752,	2753,	2886,	2894,
	2909,	2931,	2956,	2957,	3003,	3004
SYNEDRA (SA: diatoms) .....	140,	942,	1051,	1450,	1560,	1718,
	2416,	2420,	2619,	2624,	2626,	2887,
	2964,	3010				
TABELLARIA (SA: diatoms) .....	638,	942,	1312,	1491,	1560,	1566,
	1570,	1717,	1718,	1720,	1728,	2416,
	2420,	2491,	2619,	2625,	2887,	2964,
	3010					
TANTALUM .....	1136,	2023				
TEMPERATURE .....	1,	4,	13,	22,	24,	34,
(SA: circulation_temperature)	36,	40,	73,	84,	85,	86,
	87,	106,	108,	109,	110,	111,
	112,	113,	114,	115,	116,	117,
	118,	119,	121,	122,	124,	125,
	126,	127,	131,	132,	134,	136,
	138,	143,	145,	147,	148,	155,
	169,	170,	177,	186,	187,	203,
	206,	212,	215,	221,	223,	224,
	226,	227,	228,	229,	230,	232,
	233,	234,	235,	237,	238,	239,
	240,	241,	246,	263,	266,	273,
	279,	280,	287,	289,	291,	292,
	303,	308,	312,	314,	315,	317,
	324,	325,	327,	355,	358,	360,
	373,	374,	376,	392,	393,	405,
	416,	426,	431,	433,	435,	443,
	447,	448,	451,	455,	464,	468,
	469,	499,	503,	504,	505,	510,
	513,	537,	538,	539,	540,	549,
	570,	575,	606,	607,	610,	614,
	615,	616,	617,	619,	622,	624,
	634,	636,	637,	647,	690,	696,
	699,	710,	711,	712,	713,	722,
	747,	761,	768,	769,	770,	783,
	813,	820,	859,	860,	862,	864,
	865,	876,	885,	904,	919,	921,
	928,	940,	947,	948,	953,	955,
	958,	959,	964,	974,	1024,	1029,
	1042,	1044,	1051,	1057,	1061,	1072,
	1085,	1102,	1103,	1104,	1105,	1118,
	1124,	1138,	1139,	1140,	1144,	1162,
	1164,	1172,	1183,	1184,	1186,	1187,
	1190,	1191,	1195,	1196,	1198,	1201,
	1203,	1204,	1205,	1207,	1233,	1234,



TEMPERATURE (continued) .....	1287,	1288,	1289,	1290,	1291,	1292,
	1295,	1301,	1304,	1308,	1312,	1313,
	1314,	1335,	1363,	1392,	1394,	1395,
	1406,	1409,	1412,	1435,	1436,	1438,
	1439,	1442,	1454,	1467,	1485,	1489,
	1491,	1492,	1493,	1495,	1522,	1534,
	1561,	1582,	1591,	1598,	1600,	1601,
	1602,	1609,	1610,	1621,	1631,	1637,
	1638,	1661,	1664,	1683,	1684,	1685,
	1686,	1687,	1689,	1691,	1694,	1696,
	1699,	1718,	1720,	1724,	1729,	1734,
	1737,	1738,	1741,	1742,	1743,	1752,
	1765,	1768,	1771,	1779,	1781,	1782,
	1793,	1794,	1824,	1825,	1836,	1837,
	1851,	1855,	1860,	1875,	1876,	1877,
	1878,	1880,	1882,	1884,	1886,	1888,
	1889,	1890,	1891,	1896,	1898,	1900,
	1908,	1909,	1944,	1961,	1965,	1969,
	1998,	1999,	2009,	2010,	2011,	2012,
	2013,	2014,	2015,	2016,	2017,	2018,
	2019,	2020,	2033,	2037,	2050,	2053,
	2087,	2100,	2110,	2111,	2121,	2132,
	2133,	2156,	2158,	2162,	2163,	2175,
	2196,	2202,	2207,	2216,	2217,	2228,
	2250,	2256,	2257,	2287,	2290,	2291,
	2293,	2294,	2295,	2296,	2297,	2298,
	2299,	2300,	2301,	2302,	2303,	2304,
	2310,	2317,	2345,	2347,	2350,	2351,
	2353,	2357,	2360,	2361,	2362,	2368,
	2369,	2370,	2371,	2382,	2383,	2387,
	2388,	2391,	2394,	2397,	2400,	2403,
	2404,	2414,	2415,	2416,	2417,	2420,
	2421,	2445,	2446,	2447,	2448,	2462,
	2468,	2473,	2477,	2479,	2480,	2481,
	2482,	2491,	2521,	2531,	2532,	2537,
	2541,	2542,	2543,	2544,	2549,	2561,
	2588,	2592,	2615,	2618,	2620,	2624,
	2636,	2637,	2638,	2639,	2640,	2641,
	2642,	2645,	2646,	2648,	2649,	2655,
	2657,	2666,	2690,	2724,	2725,	2726,
	2728,	2738,	2739,	2752,	2761,	2763,
	2764,	2812,	2882,	2883,	2884,	2886,
	2888,	2890,	2924,	2929,	2944,	2954,
	2958,	2959,	2962,	2964,	2977,	2995,
	3001,	3023,	3024,	3037,	3052,	3056,
	3060,	3062,	3065,	3068,	3076,	3077,
	3089,	3108,	3133,	3135,	3143,	3148,
	3149,	3159,	3160			

TEMPERATURE_HISTORY .....	115,	116,	121,	124,	125,	126,
	138,	147,	221,	373,	393,	405,
	538,	624,	690,	747,	919,	921,
	959,	964,	1024,	1029,	1085,	1118,
	1204,	1301,	1454,	1621,	1718,	1720,
	1824,	1836,	1961,	2175,	2207,	2216,
	2295,	2310,	2347,	2541,	2620,	2738,
	2761,	2763,	2929,	2958,	3077	

TERBIUM .....	1136,	2023,	2269
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TERPSINOE (SA: diatoms) .....	3147					
THERMAL BAR .....	215, 2015,	1190, 2284,	1234, 2290,	1237, 2317,	1308, 2615,	1886, 2620
THERMOCLINE .....	36, 504, 862, 1468, 2010,	203, 579, 1103, 1631, 2368,	240, 615, 1113, 1724, 2884,	314, 617, 1119, 1884, 2954	443, 622, 1244, 1891,	503, 771, 1467, 1900,
(SA: stratification)						
THORIUM .....	407, 1991, 2999,	408, 1992, 3003	491, 2023,	791, 2244,	803, 2269,	1136, 2740,
TIDES .....	54, 1020, 1663, 2541,	569, 1024, 1881,	625, 1141, 1897,	672, 1204, 1899,	675, 1388, 2171,	1001, 1395, 2394,
TILL .....	8, 269, 498, 806, 853, 1089, 1208, 1533, 1647, 1830, 1853, 2173, 2538, 2950, 3050,	10, 275, 550, 807, 855, 1092, 1215, 1548, 1649, 1831, 1983, 2235, 2556, 2952, 3064,	163, 353, 752, 810, 856, 1093, 1265, 1554, 1650, 1832, 2025, 2236, 2559, 3006, 3119,	183, 354, 755, 832, 857, 1094, 1301, 1555, 1651, 1834, 2026, 2439, 2580, 3021, 3131	256, 438, 757, 850, 968, 1205, 1440, 1623, 1652, 1848, 2105, 2469, 3022,	257, 476, 764, 851, 1006, 1207, 1470, 1645, 1800, 1852, 2112, 2499, 2720, 3045,
TIN .....	1068,	1136,	2522,	2727,	2732,	2733
TITANIUM .....	933, 2733	962,	1136,	1596,	2521,	2522,
TOLESTON STAGE (SA: lake stages) .....	260, 1211,	349, 1623,	351, 2716	353,	354,	898,
TOPOGRAPHY (LAND) .....	30, 437, 889, 1163, 1496, 1624, 1764, 2237, 2981a,	129, 438, 936, 1263, 1497, 1625, 1781, 2355,	192, 440, 970, 1296, 1515, 1626, 1910, 2356,	193, 441, 1075, 1297, 1613, 1627, 1987, 2681,	247, 521, 1085, 1298, 1622, 1747, 2051, 2715,	252, 683, 1092, 1425, 1623, 1748, 2235, 2908,
TOPOGRAPHY_BENTHIC .....	37, 241, 660, 675, 907,	38, 257, 667, 677, 909,	106, 351, 668, 699, 926,	137, 622, 672, 730, 927,	235, 654, 673, 731, 1081,	239, 655, 674, 906, 1084,

TOPOGRAPHY_BENTHIC (continued) .....	1215,	1219,	1242,	1265,	1266,	1321,
	1376,	1531,	1630,	1652,	1653,	1671,
	1773,	1774,	1775,	1883,	1889,	1933,
	1948,	2021,	2022,	2118,	2169,	2175,
	2222,	2223,	2392,	2396,	2426,	2455,
	2483,	2505,	2506,	2553,	2554,	2557,
	2559,	2585,	2598,	2614,	2634,	2694,
	2719,	2745,	2799,	3016,	3045,	3104,
	3107,	3119,	3120,	3128		

TRACE METALS (S: metals)

TRANSPORTATION .....	179,	649,	685,	727,	842,	843,
(SA: navigation)	1008,	1015,	1145,	1281,	1282,	1283,
(SA: shipping)	1284,	1334,	1533,	1814,	1919,	1948,
	2405,	2422,	2879,	2935,	3034	

TRIBUTARIES .....	6,	13,	14,	20,	31,	53,
	55,	91,	92,	112,	132,	142,
	147,	155,	178,	180,	184,	189,
	190,	191,	210,	219,	220,	224,
	229,	259,	304,	305,	312,	330,
	345,	346,	350,	366,	369,	370,
	371,	376,	406,	413,	433,	437,
	443,	475,	484,	485,	510,	529,
	532,	585,	606,	607,	623,	624,
	644,	685,	686,	687,	688,	690,
	691,	698,	714,	728,	738,	748,
	772,	773,	774,	778,	794,	799,
	816,	850,	877,	891,	892,	896,
	941,	944,	948,	949,	950,	951,
	952,	955,	956,	977,	984,	987,
	993,	994,	1007,	1012,	1013,	1016,
	1020,	1025,	1026,	1028,	1029,	1045,
	1085,	1101,	1116,	1117,	1119,	1123,
	1126,	1134,	1149,	1169,	1175,	1200,
	1201,	1220,	1228,	1233,	1252,	1253,
	1255,	1292,	1304,	1305,	1306,	1307,
	1308,	1316,	1335,	1341,	1344,	1348,
	1352,	1353,	1354,	1355,	1357,	1359,
	1370,	1371,	1377,	1387,	1390,	1420,
	1443,	1444,	1462,	1471,	1473,	1477,
	1490,	1491,	1520,	1526,	1527,	1529,
	1538,	1545,	1547,	1553,	1585,	1595,
	1618,	1621,	1625,	1626,	1643,	1663,
	1673,	1701,	1713,	1714,	1734,	1748,
	1759,	1762,	1764,	1801,	1802,	1804,
	1805,	1806,	1826,	1839,	1844,	1859,
	1864,	1890,	1891,	1911,	1913,	1916,
	1917,	1918,	1921,	1924,	1925,	1961,
	1963,	1967,	1968,	1969,	1970,	1974,
	1980,	1986,	1997,	2000,	2006,	2015,
	2028,	2029,	2030,	2063,	2064,	2073,
	2090,	2100,	2115,	2118,	2137,	2139,
	2147,	2157,	2169,	2176,	2185,	2186,
	2191,	2198,	2204,	2226,	2229,	2236,
	2249,	2252,	2253,	2273,	2311,	2312,
	2314,	2316,	2317,	2329,	2345,	2353,
	2354,	2357,	2370,	2404,	2409,	2410,
	2412,	2414,	2437,	2449,	2471,	2487,



TRIBUTARIES (continued) ..... 2488, 2491, 2497, 2501, 2508, 2527,  
 2529, 2530, 2533, 2536, 2546, 2547,  
 2548, 2551, 2562, 2563, 2564, 2567,  
 2571, 2572, 2583, 2590, 2591, 2603,  
 2615, 2653, 2654, 2659, 2662, 2664,  
 2684, 2701, 2709, 2721, 2727, 2730,  
 2732, 2733, 2735, 2743, 2744, 2797,  
 2825, 2860, 2887, 2890, 2895, 2896,  
 2897, 2900, 2903, 2907, 2909, 2914,  
 2924, 2940, 2943, 2956, 2957, 2960,  
 2968, 3002, 3005, 3012, 3028, 3040,  
 3046, 3047, 3056, 3057, 3058, 3073,  
 3089, 3095, 3097, 3098, 3099, 3138,  
 3165

TRIBUTARIES\_FLOW  
 (S: flow\_tributaries)

TRIBUTARIES\_HYDROLOGY ..... 6, 53, 132, 184, 189, 190,  
 191, 259, 330, 366, 369, 370,  
 371, 376, 484, 485, 606, 607,  
 623, 624, 688, 690, 691, 714,  
 774, 941, 984, 1007, 1012, 1016,  
 1020, 1026, 1029, 1045, 1085, 1101,  
 1123, 1200, 1201, 1252, 1255, 1304,  
 1305, 1306, 1307, 1335, 1341, 1344,  
 1352, 1359, 1370, 1420, 1443, 1462,  
 1490, 1520, 1673, 1701, 1748, 1801,  
 1890, 2028, 2029, 2030, 2100, 2115,  
 2176, 2191, 2198, 2204, 2226, 2273,  
 2311, 2312, 2329, 2404, 2437, 2449,  
 2501, 2529, 2562, 2571, 2890, 2897,  
 2903, 2907, 2909, 2940, 2968, 3005,  
 3046, 3047, 3095, 3099

TRIBUTARIES\_ICE ..... 13, 14, 112, 224, 433, 1020,  
 1085, 1255, 1335, 1341, 1673, 1890,  
 1891, 2118, 2191, 2198, 3138

TRIBUTARIES\_LOADING ..... 14, 31, 91, 92, 132, 142,  
 178, 189, 190, 191, 220, 259,  
 366, 443, 484, 485, 510, 532,  
 623, 624, 748, 774, 794, 891,  
 892, 950, 1026, 1117, 1253, 1348,  
 1352, 1354, 1355, 1357, 1370, 1390,  
 1471, 1473, 1477, 1490, 1538, 1643,  
 1713, 1714, 1805, 1806, 1859, 1916,  
 1917, 1918, 1924, 1925, 1980, 1986,  
 2000, 2028, 2029, 2030, 2090, 2118,  
 2226, 2229, 2249, 2329, 2353, 2354,  
 2404, 2409, 2437, 2471, 2487, 2488,  
 2501, 2533, 2547, 2562, 2563, 2564,  
 2567, 2571, 2572, 2590, 2591, 2653,  
 2654, 2659, 2664, 2701, 2709, 2727,  
 2730, 2895, 2896, 2897, 2900, 2924,  
 2940, 2956, 2957, 2960, 3047, 3089,  
 3095

TRIBUTARIES\_SEDIMENTS ..... 20, 31, 91, 92, 132, 142,

TRIBUTARIES_SEDIMENTS (continued) .....	219,	220,	259,	312,	345,	346,
	413,	433,	443,	484,	485,	510,
	529,	532,	585,	623,	698,	728,
	748,	772,	773,	774,	794,	799,
	816,	891,	892,	896,	944,	948,
	949,	950,	951,	955,	956,	984,
	1013,	1026,	1101,	1116,	1117,	1119,
	1134,	1149,	1169,	1201,	1228,	1253,
	1255,	1292,	1316,	1348,	1352,	1354,
	1355,	1357,	1377,	1390,	1462,	1473,
	1477,	1490,	1526,	1527,	1529,	1538,
	1545,	1547,	1553,	1585,	1595,	1618,
	1643,	1713,	1714,	1734,	1801,	1802,
	1804,	1826,	1839,	1844,	1864,	1891,
	1913,	1917,	1918,	1961,	1963,	1967,
	1968,	1969,	1970,	1974,	1980,	2000,
	2006,	2028,	2029,	2030,	2073,	2118,
	2137,	2139,	2169,	2185,	2186,	2229,
	2236,	2273,	2314,	2316,	2354,	2404,
	2409,	2471,	2488,	2491,	2501,	2527,
	2533,	2536,	2546,	2547,	2563,	2564,
	2571,	2572,	2590,	2591,	2653,	2654,
	2659,	2664,	2701,	2709,	2727,	2732,
	2825,	2895,	2903,	2909,	2924,	2956,
	2957,	2960,	3002,	3040,	3095	
TRIBUTARIES_WATERSHED .....	53,	91,	92,	155,	184,	189,
	191,	259,	330,	370,	371,	376,
	443,	475,	484,	485,	623,	687,
	690,	691,	714,	728,	794,	1012,
	1016,	1028,	1029,	1101,	1126,	1200,
	1201,	1292,	1304,	1305,	1306,	1307,
	1335,	1344,	1348,	1352,	1353,	1354,
	1355,	1371,	1390,	1462,	1477,	1490,
	1538,	1748,	1921,	1986,	1997,	2028,
	2029,	2030,	2100,	2147,	2157,	2311,
	2312,	2329,	2357,	2404,	2497,	2529,
	2571,	2603,	2653,	2654,	2659,	2709,
	2733,	2890,	2897,	2907,	2940,	2956,
	2957,	3005,	3040,	3046,	3047,	3095,
	3097					
TRIBUTARIES_WETLANDS .....	259,	304,	305,	433,	687,	993,
	994,	1028,	1029,	1045,	1101,	1220,
	1252,	1341,	1348,	1357,	1443,	1444,
	1529,	1545,	1547,	1997,	2090,	2147,
	2236,	2572,	2603,	2825		
TRITIUM .....	142,	427,	782,	2991		
TUNGSTEN .....	528,	791,	803,	1136,	2023,	2740
TURBIDITY .....	152,	155,	159,	224,	230,	312,
	510,	913,	942,	1051,	1111,	1287,
	1288,	1289,	1291,	1295,	1324,	1354,
	1406,	1491,	1604,	1608,	1610,	1716,
	1759,	2118,	2132,	2162,	2163,	2254,
	2255,	2287,	2345,	2347,	2403,	2404,
	2547,	2600,	2601,	2648,	2657,	2722,

TURBIDITY (continued) .....	2739,	2761,	2763,	2764,	2812,	2909,
	2964					
TURBULENCE (S: mixing)						
TWO CREEKS STAGE (SA: lake stages) .....	850,	898,	3165			
UPPER SHEBOYGAN MEMBER .....	395					
UPWELLING .....	40,	43,	148,	230,	238,	239,
	241,	315,	426,	504,	581,	616,
	622,	1057,	1190,	1235,	1576,	1582,
	1610,	1675,	1738,	1884,	1886,	1889,
	1896,	1900,	1938,	2121,	2317,	2368,
	2382,	2383,	2420,	2479,	2480,	2533,
	2561,	2592,	2620,	2643,	2649,	2924,
	3148,	3149				
URANIUM .....	417,	528,	791,	803,	1136,	1992,
	2023,	2244,	2269,	2740,	2988,	2999,
	3003					
VALDERS MEMBER .....	832					
VANADIUM .....	312,	528,	933,	962,	983,	1055,
	1136,	1594,	1596,	1650,	2244,	2511,
	2512,	2522,	2708,	2733,	2739	
WADSWORTH TILL MEMBER .....	1089,	1093,	2714			
WATER BUDGET .....	2,	6,	168,	255,	256,	330,
(SA: model_water budget)	359,	360,	361,	373,	375,	376,
(SA: precipitation_water budget)	377,	380,	435,	538,	606,	607,
(SA: research_needs_water budget)	608,	610,	688,	690,	693,	696,
	705,	710,	712,	713,	830,	941,
	965,	1024,	1030,	1036,	1104,	1105,
	1121,	1122,	1123,	1124,	1153,	1170,
	1171,	1172,	1204,	1252,	1255,	1266,
	1335,	1343,	1344,	1359,	1393,	1520,
	1673,	1729,	1784,	1792,	1793,	1794,
	1813,	1999,	2050,	2115,	2127,	2133,
	2158,	2171,	2175,	2191,	2193,	2198,
	2199,	2204,	2208,	2209,	2210,	2211,
	2338,	2360,	2361,	2630,	2761,	2763,
	3100,	3101,	3156			
WATER DEPTH .....	206,	594,	741,	846,	861,	862,
(SA: bathymetry)	1103,	1133,	1230,	1444,	1519,	1565,
(SA: hydrography)	1781,	1786,	1802,	1851,	1883,	1884,
	1889,	1961,	1962,	1968,	1969,	2014,
	2042,	2090,	2124,	2150,	2161,	2165,
	2169,	2217,	2249,	2399,	2851,	2883,
	3001					
WATER LEVELS (S: lake levels)						
WATER MASSES .....	148,	1104,	1105,	1442,	1851,	2286,
(SA: water movement)	2317,	2395,	2541,	2620		



WATER MOVEMENT .....	135,	137,	151,	258,	273,	330,
(SA: currents; SA: circulation;	924,	984,	1098,	1104,	1105,	1113,
SA: seiche; SA: tides;	1236,	1522,	1663,	1759,	1786,	1883,
SA: water masses)	1890,	1891,	1894,	1896,	2144,	2160,
	2286,	2393,	2394,	2395,	2400,	2541
WATER SUPPLY .....	7,	199,	223,	255,	256,	267,
(SA: water budget)	274,	320,	360,	400,	414,	432,
(SA: hydrology_water supply)	435,	510,	536,	539,	553,	577,
(SA: model_water supply)	578,	624,	633,	649,	685,	686,
(SA: research needs_water supply)	689,	691,	705,	814,	881,	942,
	965,	966,	967,	982,	1007,	1008,
	1010,	1021,	1022,	1023,	1024,	1029,
	1040,	1122,	1201,	1252,	1268,	1269,
	1273,	1277,	1279,	1289,	1292,	1295,
	1304,	1305,	1306,	1307,	1317,	1325,
	1335,	1343,	1387,	1406,	1416,	1418,
	1421,	1422,	1423,	1461,	1481,	1571,
	1572,	1573,	1575,	1586,	1672,	1707,
	1726,	1751,	1784,	1814,	1815,	1822,
	1846,	1861,	1960,	1979,	2027,	2091,
	2092,	2100,	2130,	2193,	2277,	2310,
	2311,	2312,	2327,	2363,	2365,	2404,
	2429,	2430,	2528,	2529,	2593,	2600,
	2630,	2657,	2706,	2890,	2907,	2935,
	2966,	2971,	2972,	3019,	3055,	3083,
	3166					
WATERSHED .....	2,	53,	91,	92,	155,	184,
(SA: drainage basin)	189,	191,	199,	218,	259,	273,
(SA: mapping_watershed)	274,	330,	370,	371,	376,	432,
	443,	475,	477,	484,	485,	543,
	554,	623,	687,	690,	691,	707,
	714,	727,	728,	794,	813,	830,
	1010,	1012,	1016,	1028,	1029,	1032,
	1091,	1101,	1126,	1200,	1201,	1292,
	1304,	1305,	1306,	1307,	1335,	1340,
	1344,	1348,	1349,	1352,	1353,	1354,
	1355,	1371,	1390,	1462,	1463,	1477,
	1490,	1538,	1567,	1571,	1572,	1573,
	1575,	1586,	1721,	1722,	1748,	1784,
	1834,	1857,	1920,	1921,	1986,	1997,
	2028,	2029,	2030,	2100,	2130,	2147,
	2157,	2197,	2211,	2261,	2311,	2312,
	2329,	2357,	2404,	2426,	2497,	2529,
	2571,	2603,	2653,	2654,	2659,	2709,
	2733,	2879,	2889,	2890,	2897,	2907,
	2940,	2956,	2957,	3005,	3019,	3040,
	3046,	3047,	3095,	3097		
WATERWAYS .....	587,	612,	627,	1015,	1149,	1284,
(SA: connecting channels)	1747,	1919,	2842,	2849,	2852,	2857,
	3058					
WAUKEGAN MEMBER .....	163,	1650,	2267			
WAVES (SA: seiche) .....	30,	34,	37,	38,	39,	54,
(SA: circulation_waves)	98,	129,	148,	167,	181,	192,
(SA: model_waves)	193,	196,	212,	224,	226,	227,
	228,	240,	245,	249,	254,	263,

WAVES (continued) .....	269,	274,	303,	328,	331,	333,
	334,	343,	368,	383,	386,	387,
	392,	406,	429,	476,	483,	520,
	544,	546,	548,	556,	558,	594,
	612,	614,	615,	619,	621,	622,
	631,	646,	647,	654,	655,	661,
	663,	666,	667,	668,	669,	670,
	671,	673,	675,	676,	678,	704,
	717,	729,	730,	737,	739,	741,
	759,	760,	761,	770,	786,	805,
	810,	811,	812,	813,	820,	821,
	822,	844,	846,	852,	858,	862,
	869,	870,	872,	902,	903,	904,
	905,	906,	907,	909,	911,	921,
	924,	931,	948,	979,	998,	999,
	1001,	1003,	1017,	1019,	1024,	1060,
	1063,	1070,	1081,	1083,	1098,	1104,
	1105,	1141,	1142,	1164,	1178,	1185,
	1190,	1203,	1207,	1213,	1238,	1241,
	1242,	1244,	1265,	1266,	1276,	1301,
	1304,	1314,	1360,	1368,	1369,	1376,
	1377,	1378,	1379,	1381,	1382,	1383,
	1398,	1424,	1426,	1427,	1428,	1462,
	1470,	1487,	1499,	1500,	1513,	1519,
	1528,	1530,	1533,	1542,	1549,	1562,
	1574,	1576,	1577,	1578,	1604,	1609,
	1610,	1612,	1638,	1639,	1640,	1656,
	1657,	1658,	1660,	1661,	1662,	1663,
	1664,	1665,	1666,	1670,	1676,	1705,
	1730,	1736,	1750,	1766,	1780,	1781,
	1786,	1821,	1827,	1828,	1837,	1847,
	1848,	1849,	1850,	1855,	1880,	1881,
	1882,	1886,	1890,	1894,	1898,	1900,
	1944,	2020,	2024,	2037,	2056,	2069,
	2105,	2106,	2108,	2120,	2129,	2141,
	2143,	2144,	2153,	2154,	2155,	2162,
	2163,	2181,	2182,	2187,	2214,	2221,
	2222,	2242,	2250,	2286,	2323,	2328,
	2336,	2337,	2352,	2370,	2385,	2386,
	2388,	2389,	2390,	2391,	2396,	2397,
	2436,	2440,	2456,	2457,	2459,	2461,
	2462,	2465,	2466,	2469,	2475,	2513,
	2533,	2536,	2541,	2589,	2592,	2594,
	2595,	2596,	2608,	2634,	2640,	2645,
	2655,	2670,	2691,	2692,	2696,	2697,
	2712,	2713,	2715,	2722,	2745,	2748,
	2752,	2754,	2755,	2757,	2758,	2760,
	2765,	2766,	2768,	2770,	2773,	2774,
	2780,	2785,	2794,	2800,	2802,	2806,
	2809,	2810,	2814,	2838,	2841,	2880,
	2881,	2884,	2885,	2927,	2952,	2962,
	2970,	2981a,	2981b,	3015,	3017,	3027,
	3029,	3030,	3049,	3052,	3075,	3106,
	3113,	3114,	3116,	3120,	3121,	3126,
	3127,	3128,	3135,	3145,	3154	

WAVES_SEASONAL VARIATION .....	269,	274,	383,	546,	548,	663,
	759,	1164,	1185,	1190,	1203,	1244,
	1424,	1662,	1837,	1882,	1886,	1890,

WAVES\_SEASONAL VARIATION (continued) ... 2397, 2469, 2655, 2712, 2884, 3017,  
3049, 3120, 3126, 3127

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WEATHERING ..... 71, 757, 2940

WEDRON FORMATION ..... 724, 832, 1055, 1093, 1651, 1652,  
1653, 2714

WETLANDS ..... 3, 78, 99, 100, 223, 259,  
(SA: history\_wetlands) 304, 305, 307, 397, 425, 433,  
(SA: lake levels\_wetlands) 534, 550, 552, 687, 893, 913,  
(SA: review\_wetlands) 920, 921, 976, 993, 994, 1019,  
(SA: tributaries\_wetlands) 1028, 1029, 1036, 1037, 1045, 1075,  
1101, 1112, 1114, 1136, 1148, 1178,  
1179, 1220, 1221, 1252, 1293, 1294,  
1309, 1332, 1341, 1348, 1357, 1365,  
1367, 1396, 1397, 1399, 1408, 1410,  
1411, 1443, 1444, 1453, 1460, 1472,  
1501, 1529, 1545, 1547, 1559, 1678,  
1679, 1680, 1681, 1682, 1716, 1727,  
1809, 1812, 1813, 1814, 1818, 1828,  
1842, 1912, 1997, 2007, 2072, 2090,  
2147, 2181, 2231, 2236, 2246, 2352,  
2355, 2367, 2453, 2502, 2503, 2572,  
2602, 2603, 2722, 2723, 2764, 2825,  
2879, 2911, 3019, 3048, 3050, 3091,  
3110, 3111

WIND (SA: lake breeze) ..... 4, 13, 14, 22, 23, 24,  
(SA: lake levels\_wind) 30, 34, 35, 36, 37, 38,  
(SA: model\_wind) 40, 45, 46, 105, 106, 136,  
143, 146, 147, 148, 160, 186,  
187, 196, 212, 215, 224, 226,  
227, 228, 232, 233, 234, 235,  
239, 240, 241, 243, 246, 263,  
264, 265, 266, 269, 273, 274,  
276, 277, 293, 308, 317, 318,  
324, 325, 327, 328, 334, 343,  
355, 374, 376, 383, 384, 386,  
387, 392, 396, 406, 420, 464,  
483, 499, 510, 540, 544, 545,  
546, 548, 549, 572, 603, 605,  
615, 616, 617, 619, 622, 636,  
637, 647, 663, 667, 668, 670,  
671, 672, 678, 682, 699, 710,  
711, 713, 722, 730, 739, 759,  
761, 770, 805, 813, 820, 821,  
822, 834, 847, 858, 869, 872,  
876, 885, 902, 903, 904, 905,  
906, 907, 908, 909, 911, 928,  
941, 964, 967, 974, 979, 1003,  
1013, 1024, 1029, 1042, 1070, 1071,  
1103, 1104, 1105, 1135, 1142, 1144,  
1152, 1164, 1172, 1185, 1186, 1187,  
1190, 1196, 1203, 1204, 1233, 1234,  
1235, 1241, 1242, 1244, 1245, 1246,  
1254, 1265, 1266, 1295, 1301, 1304,  
1314, 1322, 1335, 1340, 1341, 1342,



WIND (continued) .....	1352,	1360,	1369,	1376,	1377,	1381,
	1388,	1391,	1392,	1395,	1405,	1406,
	1412,	1413,	1414,	1424,	1434,	1436,
	1438,	1439,	1442,	1467,	1468,	1471,
	1520,	1528,	1574,	1577,	1582,	1604,
	1609,	1610,	1612,	1631,	1637,	1639,
	1640,	1648,	1656,	1657,	1658,	1660,
	1661,	1662,	1664,	1665,	1666,	1676,
	1683,	1684,	1686,	1687,	1688,	1689,
	1690,	1691,	1692,	1693,	1694,	1696,
	1697,	1698,	1699,	1705,	1708,	1725,
	1742,	1760,	1766,	1780,	1781,	1786,
	1827,	1828,	1835,	1837,	1850,	1854,
	1855,	1875,	1876,	1877,	1878,	1880,
	1882,	1883,	1884,	1886,	1888,	1889,
	1890,	1891,	1894,	1898,	1900,	1927,
	1928,	1932,	1933,	1938,	1944,	1979,
	1999,	2009,	2010,	2011,	2018,	2037,
	2043,	2051,	2053,	2054,	2055,	2087,
	2089,	2121,	2123,	2124,	2127,	2129,
	2141,	2142,	2143,	2153,	2154,	2156,
	2162,	2163,	2164,	2171,	2176,	2182,
	2207,	2217,	2221,	2230,	2242,	2243,
	2257,	2336,	2337,	2349,	2350,	2368,
	2369,	2370,	2381,	2382,	2384,	2388,
	2389,	2391,	2414,	2436,	2445,	2446,
	2447,	2448,	2454,	2455,	2456,	2459,
	2460,	2461,	2462,	2463,	2465,	2466,
	2467,	2477,	2491,	2518,	2519,	2521,
	2522,	2523,	2537,	2550,	2561,	2592,
	2636,	2637,	2638,	2639,	2640,	2641,
	2642,	2645,	2648,	2650,	2655,	2666,
	2711,	2725,	2726,	2745,	2752,	2760,
	2764,	2766,	2773,	2774,	2800,	2806,
	2809,	2814,	2847,	2881,	2886,	2888,
	2927,	2944,	2961,	2963,	2965,	2981a,
	3009,	3017,	3026,	3029,	3052,	3059,
	3060,	3061,	3062,	3068,	3114,	3116,
	3119,	3121,	3127,	3128,	3135,	3144,
	3145,	3160				

WINNETKA MEMBER ..... 164

WINTER (SA: ice; SA: snow) .....	12,	45,	84,	108,	109,	110,
	111,	113,	114,	118,	120,	121,
	122,	124,	125,	126,	127,	128,
	169,	177,	285,	295,	296,	297,
	309,	312,	316,	326,	327,	433,
	471,	571,	573,	574,	636,	637,
	699,	716,	719,	852,	940,	1033,
	1044,	1066,	1138,	1139,	1187,	1233,
	1243,	1334,	1387,	1405,	1436,	1458,
	1493,	1600,	1601,	1606,	1696,	1742,
	1934,	1998,	1999,	2007,	2009,	2010,
	2016,	2017,	2019,	2033,	2087,	2110,
	2111,	2123,	2207,	2293,	2294,	2296,
	2297,	2298,	2299,	2302,	2303,	2304,
	2337,	2373,	2376,	2387,	2405,	2424,
	2477,	2482,	2483,	2707,	2777,	2778,
	2822,	2823,	2842,	2854,	2865,	

WISCONSINAN STAGE (SA: lake stages) ....	745,	934,	935,	2716		
YTTRIUM .....	142,	1136				
ZINC .....	11,	57,	58,	91,	92,	132,
	142,	178,	189,	198,	312,	345,
	346,	407,	408,	417,	427,	443,
	460,	495,	496,	526,	528,	534,
	624,	728,	746,	791,	803,	823,
	824,	825,	882,	883,	891,	892,
	932,	933,	983,	1009,	1053,	1054,
	1055,	1085,	1101,	1136,	1245,	1253,
	1264,	1286,	1290,	1292,	1316,	1319,
	1322,	1324,	1471,	1489,	1507,	1526,
	1557,	1558,	1592,	1594,	1595,	1596,
	1650,	1865,	1913,	1966,	1994,	2006,
	2023,	2063,	2084,	2085,	2119,	2140,
	2151,	2244,	2254,	2255,	2265,	2273,
	2316,	2317,	2319,	2320,	2321,	2346,
	2404,	2436,	2437,	2490,	2494,	2511,
	2512,	2516,	2521,	2522,	2601,	2606,
	2710,	2730,	2733,	2739,	2740,	2812,
	2818,	2883,	2903,	2916,	3059,	3157
ZIRCONIUM .....	1068,	1136,	1988,	1994		

# AREA INDEX

ALCONA COUNTY, MI .....	102					
ALGOMA, WI .....	915					
ALLEGAN COUNTY, MI .....	388,	652				
ALPENA, MI .....	958					
ARLINGTON HEIGHTS, IL .....	578,	2966				
BAILEY'S HARBOR REEFS, WI .....	2595					
BAILLY NUCLEAR POWER PLANT, IN .....	976,	1731,	1800			
BEAVER ISLAND, MI .....	399,	401,	1399,	1828,	1925,	1927,
	1928,	1929,	1930,	2276,	2305,	2306,
	2307,	2308,	2556			
BENDER PARK, WI .....	260					
BENTON HARBOR, MI .....	600,	825,	914,	915,	1441,	1504,
	1505,	1594,	1902,	2016,	2017,	2104,
	2140,	2264,	2333,	2512,	2658,	2673,
	2979					
BERRIEN COUNTY, MI .....	268,	388,	652,	2669,	2670,	2870
BETSIE RIVER, MI .....	2273,	2414				
BIG ROCK NUCLEAR POWER PLANT, MI .....	142,	932,	1994,	2990		
BIG SABLE POINT, MI .....	98,	1736				
BIG SABLE RIVER, MI .....	2253,	2273				
BIG SUAMICO RIVER, WI .....	2960					
(SA: Suamico River)						
BLACK CREEK, MI .....	2273					
BLACK RIVER, MI .....	794,	1621,	2137,	2253,	2273	
BOARDMAN RIVER, MI .....	178,	2253,	2273			
BRANCH RIVER, WI .....	189,	2253				
BRIDGMAN, MI .....	1374,	2485				
BROWN COUNTY, WI .....	475,	1556,	1997			
BURNHAM HARBOR, IL .....	744					
BURNS DITCH, IN .....	1308,	2253				
BURNS HARBOR, IL .....	546,	548,	1872,	2852		



CALUMET AREA, IL-IN .....	566,	1136,	1225,	1406,	1420,	1798,
(SA: Calumet Harbor)	2088,	2193,	2255,	2373,	2374,	2383,
(SA: Calumet River)	2466,	2467,	2490,	2546,	2547,	2548,
(SA: Grand Calumet River)	2751,	2753				
(SA: Little Calumet River)						
CALUMET HARBOR, IL .....	232,	591,	944,	945,	1118,	1308,
(SA: Calumet Area)	1366,	1405,	1406,	1872,	1953,	1955,
	1956,	1957,	2388,	2389,	2467,	2658,
	2760,	2797,	2855,	2865,	2866	
CALUMET RIVER (SA: Calumet Area) .....	2157,	2865,	2903			
CAMP LOGAN, IL .....	1300					
CARP LAKE RIVER, MI .....	2410					
CEDAR RIVER, MI .....	2273,	2733				
CENTRAL LAKE MICHIGAN .....	324,	724,	1224,	1435,	1898,	2446,
	2462,	2465,	2498,	2645,	3045,	3104,
	3107,	3109				
CHARLES MEARS STATE PARK, MI .....	98,	1736				
CHARLEVOIX, MI .....	808,	836,	2156,	2902		
CHICAGO, IL .....	4,	6,	7,	25,	33,	47,
	48,	50,	59,	114,	115,	146,
	179,	195,	196,	205,	207,	208,
	211,	233,	248,	250,	301,	347,
	351,	398,	400,	414,	450,	452,
	456,	457,	459,	460,	463,	486,
	487,	488,	501,	506,	507,	508,
	509,	510,	532,	549,	561,	565,
	566,	577,	578,	587,	597,	600,
	627,	632,	633,	634,	638,	642,
	682,	718,	730,	740,	741,	742,
	744,	754,	755,	762,	814,	825,
	884,	918,	922,	936,	939,	943,
	958,	962,	966,	967,	975,	1071,
	1090,	1092,	1093,	1118,	1128,	1137,
	1139,	1164,	1245,	1265,	1266,	1269,
	1273,	1284,	1289,	1290,	1292,	1295,
	1296,	1300,	1301,	1304,	1380,	1405,
	1406,	1417,	1418,	1419,	1421,	1422,
	1423,	1440,	1448,	1463,	1471,	1478,
	1479,	1550,	1572,	1594,	1615,	1634,
	1635,	1687,	1688,	1691,	1693,	1694,
	1706,	1707,	1718,	1719,	1720,	1726,
	1763,	1767,	1768,	1776,	1790,	1855,
	1924,	1925,	1927,	1928,	1929,	1930,
	1960,	1988,	1991,	2005,	2016,	2017,
	2053,	2060,	2092,	2093,	2099,	2143,
	2327,	2331,	2356,	2362,	2365,	2366,
	2383,	2403,	2404,	2429,	2430,	2450,
	2466,	2489,	2518,	2519,	2522,	2547,
	2601,	2657,	2659,	2666,	2706,	2736,
	2750,	2760,	2763,	2764,	2766,	2772,
	2774,	2797,	2807,	2837,	2851,	2853,

CHICAGO, IL (continued)	2857,	2858,	2859,	2862,	2869,	2880,
	2881,	2885,	2886,	2887,	2903,	2925,
	2940,	2971,	2972,	3053,	3054,	3055,
	3059,	3061,	3063,	3140,	3157	
CHICAGO HARBOR, IL	2466,	2797,	2886,	2887		
CHICAGO RIVER, IL	627,	1277,	1284,	1545,	1547,	1721,
	1722,	2092,	2551,	2761,	2797,	2839
CHIPPEWA COUNTY, MI	102					
CLAY BANKS-STONY CREEK REEFS, WI	2595					
COOK COUNTY, IL	7,	47,	192,	246,	561,	1091,
	1265,	1266,	1440,	1669,	2365,	2601
COWLES BOG, IN	1148,	3050				
D.C. COOK NUCLEAR POWER PLANT, MI	140,	141,	143,	144,	149,	150,
	154,	156,	157,	158,	160,	161,
	162,	315,	733,	839,	1191,	1446,
	1447,	1503,	1566,	1901,	1903,	1904,
	1905,	1906,	2037,	2137,	2272,	2284,
	2315,	2317,	2321,	2322,	2323,	2350,
	2419,	2477,	2479,	2480,	2481,	2482,
	2483,	2484,	3037,	3051,	3077,	3078,
	3079,	3160				
DEATHDOOR BLUFF REEF, WI	2594					
DES PLAINES RIVER, IL-WI	1553,	2444				
DETROIT RIVER, MI	88,	108,	224,	273,	274,	280,
	376,	379,	382,	432,	433,	479,
	591,	891,	892,	993,	1185,	1253,
	1335,	1336,	1340,	1341,	1828,	1919,
	1953,	1955,	1956,	1957,	2043,	2090,
	2162,	2163,	2190,	2192,	2198,	2199,
	2203,	2225,	2788,	2851,	3057,	3058
DOOR COUNTY, WI	165,	320,	480,	630,	639,	708,
	1169,	1390,	1496,	1497,	1797,	1927,
	1928,	1981,	2147,	2237,	2355,	2509,
	2510,	2603,	2612,	2720,	2932	
DU PAGE COUNTY, IL	7,	1669,	2364,	2365		
EAST CHICAGO, IN	1839,	2088,	2797,	2812		
EASTERN LAKE MICHIGAN	18,	42,	338,	344,	383,	388,
	419,	442,	656,	658,	660,	664,
	665,	669,	675,	676,	678,	734,
	806,	841,	843,	845,	886,	904,
	1045,	1076,	1083,	1176,	1191,	1248,
	1249,	1658,	1779,	1876,	1877,	1973,
	2037,	2054,	2055,	2126,	2392,	2396,
	2629,	2939,	2992			

ESCANABA, MI .....	114,	115,	298,	808,	958,	1139,
	1388,	1759,	2803			
ESCANABA RIVER, MI .....	1621,	1714,	2253,	2273,	2345,	2733
EVANSTON, IL .....	48,	129,	250,	253,	511,	558,
	740,	890,	1051,	1512,	1985,	2403,
	2737,	2754,	2758,	2797,	2810,	2845
FORD RIVER, MI .....	1621,	2253,	2273			
FORT SHERIDAN, IL .....	249,	250,	515,	558,	740,	890,
	1276,	1578,	1645,	2755		
FOX ISLAND, MI .....	2919					
FOX POINT, WI .....	917					
FOX RIVER, WI .....	6,	13,	14,	55,	184,	189,
	210,	219,	224,	259,	304,	305,
	366,	406,	413,	475,	685,	686,
	687,	738,	877,	944,	948,	977,
	1020,	1116,	1117,	1169,	1228,	1370,
	1371,	1390,	1473,	1526,	1585,	1595,
	1734,	1748,	1762,	1764,	1844,	1864,
	1890,	1891,	1983,	2118,	2157,	2273,
	2329,	2353,	2354,	2357,	2487,	2497,
	2530,	2590,	2591,	2662,	2684,	2709,
	2733,	2735,	2743,	2825,	2860,	2914,
	2960,	3012,	3040,	3089,	3097,	3098
FRANKFORT, MI .....	269,	600,	1235,	1652,	2556,	2919
FURNESSVILLE, IN .....	2612					
GALIEN RIVER, MI .....	2273,	2317				
GARY, IN .....	825,	1130,	1308,	2116,	2547,	3057,
	3059					
GLEN HAVEN, MI .....	1676					
GLENCOE, IL .....	48,	246,	558,	740,	1300,	2403
GLENN, MI .....	344,	1006,	2476			
GRAND CALUMET RIVER, IN .....	1308,	1529,	1839,	2088,	2547	
GRAND HAVEN, MI .....	15,	17,	18,	19,	67,	75,
	230,	233,	444,	650,	779,	783,
	785,	790,	825,	837,	860,	862,
	878,	879,	951,	954,	1133,	1143,
	1192,	1412,	1441,	1522,	1534,	1537,
	1557,	1558,	1594,	1609,	1662,	1687,
	1728,	1801,	2015,	2054,	2075,	2078,
	2140,	2265,	2271,	2333,	2344,	2398,
	2400,	2419,	2420,	2512,	2615,	2625,
	2729,	2919,	2979,	2992,	3001	
GRAND HAVEN HARBOR, MI .....	67,	75,	1192,	1557,	1558	



GRAND MERE, MI .....	996					
GRAND RIVER, MI .....	20,	92,	155,	350,	353,	354,
	443,	714,	772,	773,	774,	778,
	896,	951,	952,	955,	956,	1119,
	1134,	1491,	1610,	1714,	1802,	1804,
	1805,	1806,	1859,	1911,	1961,	1963,
	1967,	1968,	1969,	1970,	1971,	1973,
	1974,	1975,	2185,	2186,	2253,	2273,
	2316,	2412,	2414,	2615,	2721,	2732,
	2733,	2940				
GRAND TRAVERSE BAY .....	101,	131,	132,	138,	178,	276,
	277,	299,	330,	543,	980,	1139,
	1386,	1457,	1458,	1459,	1561,	1749,
	1752,	1753,	1828,	1854,	2068,	2314,
	2344,	2348,	2411,	2556,	2626,	2673,
	2698,	2699,	2739,	2977,	2986,	2987,
	3076,	3151				
GREAT LAKES .....	5,	11,	21,	49,	79,	82,
(general on all Great Lakes	93,	103,	120,	123,	130,	194,
or not specify which of the	218,	220,	231,	238,	244,	245,
Great Lakes)	263,	271,	285,	286,	288,	289,
	308,	316,	323,	329,	331,	339,
	356,	357,	362,	364,	365,	368,
	369,	370,	371,	374,	375,	380,
	403,	405,	420,	421,	424,	431,
	434,	439,	440,	441,	445,	471,
	484,	491,	514,	518,	519,	520,
	521,	525,	535,	536,	537,	540,
	545,	556,	558,	598,	606,	607,
	609,	611,	615,	617,	619,	629,
	640,	643,	649,	651,	684,	695,
	698,	700,	710,	717,	719,	726,
	729,	731,	745,	747,	748,	767,
	776,	777,	786,	793,	811,	813,
	816,	817,	821,	830,	856,	866,
	868,	874,	891,	892,	924,	972,
	973,	1008,	1014,	1016,	1018,	1021,
	1022,	1023,	1027,	1031,	1033,	1035,
	1036,	1037,	1038,	1039,	1044,	1046,
	1047,	1062,	1067,	1081,	1086,	1102,
	1109,	1110,	1123,	1125,	1138,	1151,
	1181,	1210,	1216,	1251,	1275,	1281,
	1282,	1283,	1316,	1318,	1319,	1320,
	1322,	1324,	1330,	1331,	1337,	1343,
	1344,	1346,	1352,	1359,	1367,	1394,
	1396,	1410,	1427,	1428,	1445,	1462,
	1465,	1474,	1480,	1482,	1488,	1492,
	1493,	1501,	1507,	1518,	1519,	1520,
	1535,	1536,	1541,	1568,	1576,	1579,
	1581,	1582,	1586,	1597,	1599,	1622,
	1631,	1640,	1642,	1663,	1682,	1686,
	1695,	1702,	1716,	1726,	1739,	1740,
	1751,	1770,	1777,	1792,	1816,	1817,
	1820,	1823,	1842,	1857,	1858,	1867,
	1871,	1874,	1875,	1885,	1887,	1912,
	1915,	1931,	1932,	1934,	1935,	1936,

GREAT LAKES (continued) .....	1943,	1945,	1946,	1947,	1959,	1965,
	1976,	1980,	1986,	1993,	1995,	1998,
	2001,	2021,	2022,	2023,	2033,	2040,
	2046,	2047,	2056,	2058,	2067,	2071,
	2091,	2100,	2101,	2102,	2103,	2109,
	2110,	2114,	2115,	2121,	2125,	2130,
	2131,	2134,	2144,	2145,	2146,	2148,
	2150,	2151,	2155,	2158,	2159,	2164,
	2176,	2189,	2195,	2199,	2204,	2205,
	2206,	2208,	2220,	2224,	2226,	2229,
	2235,	2238,	2244,	2247,	2248,	2258,
	2260,	2285,	2291,	2297,	2300,	2301,
	2302,	2303,	2339,	2341,	2343,	2359,
	2361,	2422,	2424,	2425,	2427,	2451,
	2461,	2478,	2500,	2506,	2508,	2515,
	2516,	2539,	2540,	2543,	2566,	2568,
	2579,	2580,	2582,	2586,	2630,	2641,
	2644,	2647,	2671,	2675,	2676,	2677,
	2678,	2679,	2681,	2682,	2683,	2713,
	2717,	2723,	2724,	2773,	2776,	2777,
	2778,	2779,	2783,	2798,	2799,	2814,
	2817,	2827,	2828,	2830,	2833,	2840,
	2841,	2842,	2846,	2849,	2850,	2868,
	2871,	2872,	2874,	2892,	2896,	2899,
	2901,	2906,	2916,	2917,	2928,	2935,
	2938,	2940,	2943,	2944,	2945,	2946,
	2949,	2951,	2952,	2978,	2989,	3003,
	3007,	3008,	3011,	3019,	3031,	3036,
	3039,	3041,	3044,	3047,	3071,	3135,
	3136,	3138,	3139,	3141,	3142,	3145,
	3146,	3163				
GREAT LAKES BASIN .....	11,	49,	244,	286,	369,	370,
	371,	380,	405,	484,	514,	519,
	545,	606,	607,	649,	700,	710,
	747,	813,	856,	891,	892,	1008,
	1014,	1016,	1018,	1021,	1022,	1023,
	1027,	1036,	1037,	1102,	1125,	1318,
	1319,	1322,	1324,	1343,	1344,	1352,
	1359,	1462,	1492,	1493,	1520,	1568,
	1586,	1663,	1726,	1986,	2040,	2100,
	2101,	2121,	2130,	2134,	2148,	2176,
	2208,	2244,	2300,	2516,	2679,	2681,
	2682,	2723,	2724,	2783,	2798,	2872,
	2906,	2940,	2943,	2944,	3007,	3019,
	3039,	3141				
GREAT LAKES HARBORS (general) .....	2899					
(SA: specific harbors)						
GREAT LAKES NAVAL TRAINING BASE, IL .....	245,	556,	1275,	1281,	1282,	1283,
	2021,	2022,	2023,	2235		
GREEN BAY .....	6,	13,	14,	54,	55,	78,
	110,	112,	114,	115,	138,	184,
	189,	202,	204,	209,	210,	219,
	223,	224,	258,	259,	275,	298,
	304,	305,	320,	345,	366,	397,
	405,	406,	407,	408,	411,	413,
	415,	416,	417,	418,	469,	475,

GREEN BAY (continued) .....	479,	480,	489,	490,	494,	495,
	530,	574,	575,	591,	625,	685,
	686,	687,	703,	708,	721,	738,
	746,	788,	791,	803,	828,	854,
	871,	875,	877,	913,	915,	924,
	944,	945,	947,	948,	950,	958,
	964,	977,	985,	991,	994,	1020,
	1024,	1054,	1068,	1075,	1111,	1112,
	1113,	1115,	1116,	1117,	1129,	1139,
	1141,	1142,	1163,	1169,	1180,	1192,
	1193,	1221,	1222,	1223,	1226,	1227,
	1228,	1229,	1230,	1366,	1370,	1371,
	1372,	1377,	1387,	1388,	1390,	1412,
	1442,	1472,	1473,	1481,	1485,	1496,
	1497,	1513,	1526,	1556,	1557,	1558,
	1563,	1565,	1585,	1595,	1601,	1602,
	1603,	1607,	1608,	1630,	1655,	1700,
	1717,	1724,	1734,	1745,	1748,	1750,
	1756,	1759,	1762,	1764,	1771,	1799,
	1837,	1840,	1844,	1845,	1864,	1865,
	1866,	1881,	1883,	1890,	1891,	1897,
	1907,	1933,	1951,	1953,	1955,	1956,
	1957,	1983,	1997,	2000,	2034,	2118,
	2119,	2147,	2157,	2180,	2181,	2193,
	2222,	2223,	2234,	2236,	2237,	2249,
	2250,	2253,	2257,	2273,	2286,	2287,
	2314,	2318,	2319,	2320,	2329,	2344,
	2345,	2352,	2353,	2354,	2357,	2411,
	2423,	2431,	2445,	2449,	2454,	2463,
	2468,	2471,	2487,	2497,	2510,	2530,
	2538,	2558,	2590,	2591,	2594,	2595,
	2596,	2606,	2627,	2656,	2658,	2662,
	2673,	2674,	2684,	2698,	2699,	2708,
	2709,	2733,	2735,	2739,	2740,	2743,
	2744,	2751,	2753,	2780,	2784,	2803,
	2825,	2826,	2851,	2860,	2887,	2888,
	2889,	2891,	2896,	2905,	2914,	2924,
	2932,	2940,	2953,	2954,	2960,	3012,
	3040,	3045,	3072,	3087,	3089,	3090,
	3092,	3097,	3098,	3152,	3155,	3159
GULL ISLAND, MI .....	1502,	2305,	2306,	2307,	2308,	2596,
	2919					
HAMMOND, IN .....	808,	2797				
HIGHLAND PARK, IL .....	246,	249,	558,	739,	740,	1300,
	1373,	1421,	2797,	2981a		
HIGHWOOD, IL .....	558					
HOLLAND, MI .....	232,	666,	668,	904,	905,	909,
	2193,	2919				
ILE AUX GALETS, MI .....	2305,	2306,	2307,	2308		
ILLINOIS .....	4,	7,	23,	25,	30,	33,
(SA: specific cities, rivers,	38,	47,	48,	50,	59,	60,
or power plants)	61,	62,	69,	71,	72,	76,



ILLINOIS (continued) .....	164,	172,	175,	179,	181,	192,
	193,	195,	196,	205,	207,	208,
	211,	215,	233,	245,	246,	247,
	248,	249,	250,	252,	253,	254,
	255,	256,	267,	272,	274,	282,
	284,	301,	307,	319,	345,	347,
	351,	398,	400,	414,	429,	430,
	432,	450,	451,	452,	454,	456,
	457,	459,	460,	463,	465,	486,
	487,	488,	501,	506,	507,	508,
	509,	510,	511,	512,	515,	516,
	517,	531,	532,	539,	549,	551,
	555,	556,	557,	558,	559,	560,
	561,	562,	563,	564,	565,	566,
	567,	577,	578,	587,	591,	597,
	600,	627,	632,	633,	634,	638,
	642,	671,	673,	682,	689,	718,
	722,	730,	739,	740,	741,	742,
	743,	744,	752,	753,	754,	755,
	756,	757,	761,	762,	763,	766,
	808,	814,	819,	825,	857,	867,
	871,	881,	884,	887,	888,	889,
	890,	898,	900,	912,	915,	918,
	920,	922,	935,	936,	937,	939,
	942,	943,	944,	945,	958,	960,
	961,	962,	964,	966,	967,	975,
	997,	999,	1018,	1028,	1029,	1030,
	1041,	1043,	1051,	1053,	1056,	1071,
	1074,	1089,	1090,	1091,	1092,	1093,
	1094,	1095,	1100,	1118,	1128,	1136,
	1137,	1139,	1149,	1164,	1166,	1167,
	1199,	1245,	1254,	1256,	1257,	1258,
	1259,	1260,	1262,	1263,	1264,	1265,
	1266,	1267,	1268,	1269,	1270,	1271,
	1272,	1273,	1274,	1275,	1276,	1277,
	1279,	1280,	1281,	1282,	1283,	1284,
	1285,	1286,	1287,	1288,	1289,	1290,
	1291,	1292,	1293,	1294,	1295,	1296,
	1297,	1298,	1299,	1300,	1301,	1302,
	1303,	1304,	1312,	1314,	1342,	1353,
	1364,	1369,	1373,	1378,	1379,	1380,
	1381,	1382,	1383,	1391,	1398,	1405,
	1406,	1417,	1418,	1419,	1420,	1421,
	1422,	1423,	1440,	1448,	1454,	1461,
	1463,	1471,	1478,	1479,	1495,	1499,
	1506,	1511,	1512,	1514,	1515,	1523,
	1524,	1525,	1529,	1532,	1533,	1542,
	1543,	1545,	1547,	1549,	1550,	1553,
	1572,	1578,	1586,	1594,	1613,	1615,
	1617,	1625,	1632,	1633,	1634,	1635,
	1645,	1646,	1648,	1651,	1662,	1669,
	1683,	1687,	1688,	1689,	1691,	1693,
	1694,	1706,	1707,	1718,	1719,	1720,
	1721,	1722,	1726,	1732,	1733,	1747,
	1748,	1763,	1767,	1768,	1776,	1785,
	1790,	1846,	1847,	1848,	1849,	1850,
	1855,	1861,	1872,	1919,	1924,	1925,
	1927,	1928,	1929,	1930,	1953,	1956,
	1957,	1960,	1985,	1988,	1991,	2005,
	2016,	2017,	2021,	2022,	2023,	2024,

ILLINOIS (continued) .....	2025,	2026,	2053,	2060,	2089,	2092,
	2093,	2099,	2105,	2112,	2135,	2143,
	2235,	2251,	2254,	2313,	2327,	2331,
	2333,	2356,	2362,	2363,	2364,	2365,
	2366,	2373,	2374,	2381,	2382,	2383,
	2388,	2402,	2403,	2404,	2428,	2429,
	2430,	2431,	2439,	2444,	2450,	2466,
	2467,	2489,	2490,	2511,	2512,	2518,
	2519,	2522,	2528,	2546,	2547,	2551,
	2593,	2597,	2600,	2601,	2606,	2613,
	2616,	2629,	2633,	2639,	2642,	2652,
	2657,	2658,	2659,	2661,	2664,	2666,
	2691,	2692,	2693,	2694,	2695,	2696,
	2697,	2704,	2707,	2709,	2736,	2737,
	2741,	2742,	2747,	2750,	2754,	2755,
	2757,	2758,	2759,	2760,	2761,	2763,
	2764,	2765,	2766,	2767,	2768,	2769,
	2770,	2771,	2772,	2774,	2793,	2795,
	2797,	2801,	2806,	2807,	2810,	2815,
	2816,	2823,	2829,	2831,	2832,	2837,
	2839,	2842,	2845,	2849,	2851,	2853,
	2856,	2857,	2858,	2859,	2862,	2863,
	2864,	2867,	2869,	2873,	2880,	2881,
	2885,	2886,	2887,	2890,	2895,	2897,
	2903,	2908,	2913,	2925,	2940,	2966,
	2968,	2969,	2971,	2972,	2973,	2981,
	2982,	3013,	3014,	3021,	3030,	3032,
	3033,	3053,	3054,	3055,	3059,	3061,
	3062,	3063,	3064,	3066,	3129,	3140,
	3149,	3157				

ILLINOIS BEACH STATE PARK, IL .....	47,	69,	72,	249,	272,	558,
	560,	567,	671,	857,	890,	918,
	997,	1167,	1262,	1263,	1274,	1276,
	1300,	1364,	1369,	1515,	1545,	1547,
	1847,	1848,	1849,	1850,	1925,	1927,
	1928,	2235,	2403,	2691,	2693,	2696,
	2697,	2757,	2760,	2765,	2767,	2768,
	2815,	2968,	2969,	3030,	3129	

ILLINOIS RIVER, IL .....	195,	762,	884,	944,	1053,	1448,
	1495,	1747,	1776,	1960,	2092,	2444,
	2593,	2597,	2764,	2829,	2837,	2873,
	2913					

ILLINOIS SHORELINE (SA: Illinois) .....	23,	25,	30,	47,	48,	50,
	61,	62,	71,	72,	129,	172,
	175,	181,	192,	193,	196,	205,
	245,	247,	248,	249,	250,	252,
	253,	254,	255,	282,	347,	351,
	398,	400,	429,	430,	465,	487,
	488,	501,	509,	511,	512,	515,
	516,	551,	555,	556,	558,	559,
	560,	561,	562,	563,	565,	577,
	587,	597,	642,	718,	739,	740,
	741,	752,	753,	754,	755,	756,
	757,	761,	819,	887,	889,	890,
	898,	900,	936,	937,	960,	961,
	966,	1043,	1071,	1074,	1089,	1092,

ILLINOIS SHORELINE (continued) .....	1262,	1263,	1265,	1266,	1267,	1270,
	1271,	1272,	1274,	1275,	1276,	1279,
	1280,	1285,	1293,	1294,	1296,	1297,
	1298,	1364,	1369,	1378,	1379,	1381,
	1382,	1383,	1398,	1499,	1511,	1512,
	1514,	1515,	1523,	1524,	1525,	1533,
	1542,	1543,	1549,	1578,	1613,	1615,
	1617,	1632,	1633,	1645,	1688,	1847,
	1848,	1850,	1985,	2026,	2060,	2099,
	2105,	2112,	2251,	2327,	2331,	2356,
	2450,	2466,	2489,	2490,	2629,	2633,
	2652,	2657,	2691,	2692,	2693,	2694,
	2695,	2696,	2697,	2736,	2737,	2754,
	2757,	2758,	2765,	2767,	2768,	2769,
	2770,	2771,	2772,	2793,	2795,	2797,
	2801,	2806,	2823,	2831,	2845,	2973,
	2981,	2982,	3053,	3129,	3140	
ILLINOIS WATERS .....	531,	564,	600,	638,	742,	743,
(SA: Illinois)	744,	766,	997,	1136,	1199,	1245,
(SA: Southern Lake Michigan)	1257,	1258,	1260,	1264,	1284,	1287,
	1288,	1289,	1291,	1292,	1295,	1300,
	1301,	1302,	1303,	1478,	1479,	1506,
	1532,	1707,	1721,	1722,	2021,	2022,
	2023,	2025,	2254,	2381,	2383,	2388,
	2402,	2403,	2404,	2444,	2467,	2601,
	2642,	2704,	2764,	2832,	2913,	3149
ILLINOIS WATERWAY (S: Chicago River)						
(S: Illinois River)						
INDIANA .....						
(SA: specific cities, rivers,	25,	30,	74,	143,	166,	185,
or power plants)	197,	229,	232,	260,	261,	274,
	278,	281,	284,	307,	346,	432,
	451,	454,	463,	534,	539,	548,
	550,	551,	552,	586,	595,	600,
	601,	602,	603,	604,	605,	679,
	680,	681,	754,	825,	831,	871,
	898,	900,	916,	925,	936,	938,
	942,	944,	945,	962,	964,	976,
	979,	992,	1018,	1028,	1029,	1030,
	1041,	1043,	1060,	1094,	1095,	1101,
	1107,	1118,	1120,	1128,	1130,	1148,
	1173,	1174,	1177,	1178,	1179,	1192,
	1304,	1306,	1307,	1308,	1309,	1310,
	1311,	1342,	1353,	1362,	1373,	1391,
	1420,	1452,	1471,	1499,	1510,	1529,
	1545,	1547,	1551,	1557,	1558,	1560,
	1573,	1586,	1604,	1612,	1615,	1616,
	1633,	1636,	1683,	1689,	1691,	1701,
	1731,	1767,	1768,	1800,	1803,	1806,
	1835,	1839,	1872,	1919,	2050,	2051,
	2052,	2086,	2088,	2089,	2112,	2116,
	2157,	2182,	2219,	2239,	2240,	2241,
	2253,	2254,	2273,	2311,	2312,	2332,
	2383,	2443,	2466,	2502,	2503,	2547,
	2600,	2605,	2612,	2616,	2629,	2688,
	2707,	2714,	2715,	2716,	2741,	2742,
	2752,	2756,	2762,	2793,	2797,	2807,



INDIANA (continued) .....	2812,	2836,	2843,	2852,	2854,	2855,
	2865,	2866,	2890,	2897,	2903,	2908,
	3015,	3017,	3048,	3049,	3050,	3057,
	3059,	3074,	3115,	3117,	3118,	3120,
	3121,	3122,	3123,	3125		
INDIANA DUNES NATIONAL LAKESHORE, IN ...	534,	552,	586,	679,	680,	916,
	938,	976,	979,	1060,	1101,	1148,
	1173,	1174,	1178,	1362,	1373,	1551,
	1701,	1731,	1800,	2182,	2239,	2240,
	2241,	2502,	2714,	2715,	2716,	2852,
	3015,	3017,	3048,	3049,	3050,	3115,
	3117,	3120,	3121,	3122,	3123,	3125
INDIANA DUNES STATE PARK, IN .....	551,	595,	925,	1128,	1178,	1179,
	2050,	2052,	2715			
INDIANA HARBOR, IN .....	346,	944,	945,	1118,	1192,	1308,
	1391,	1557,	1558,	1767,	1768,	1839,
	2088,	2466,	2547,	2605,	2752,	2807,
	2812,	2903				
INDIANA SHOALS .....	1604,	1612				
INDIANA SHORELINE (SA: Indiana) .....	25,	30,	166,	185,	197,	260,
	261,	281,	550,	551,	552,	586,
	595,	601,	602,	603,	604,	605,
	680,	681,	754,	898,	900,	916,
	925,	936,	938,	1043,	1094,	1095,
	1107,	1148,	1173,	1174,	1177,	1310,
	1311,	1362,	1452,	1499,	1510,	1551,
	1615,	1616,	1633,	1636,	1701,	1800,
	1835,	2050,	2051,	2052,	2086,	2112,
	2182,	2239,	2240,	2241,	2332,	2503,
	2612,	2629,	2714,	2715,	2716,	2756,
	2793,	2843,	3048,	3049,	3050,	3074,
	3115,	3117,	3118,	3120,	3121,	3122
INDIANA WATERS .....	229,	600,	979,	992,	1308,	2219,
(SA: Indiana)	2254,	2383,	2762,	2852		
(SA: Southern Lake Michigan)						
J.H. CAMPBELL GENERATING STATION, IL ...	105,	3038,	3075,	3160		
JACKSON PARK, IL .....	2766					
JACKSONPORT REEFS, WI .....	2595					
JULIAN'S REEF, IL .....	564					
KALAMAZOO RIVER, MI .....	714,	1714,	2253,	2273,	2414,	2733
KENILWORTH, IL .....	246,	558,	740,	1300		
KENOSHA, WI .....	920,	1147,	1545,	1547,	1549,	1563,
	1756,	2177,	2358,	2774,	2786,	2809,
	2818					
KENOSHA COUNTY, WI .....	1063,	1099,	1166,	1167,	1252,	1379,

KENOSHA HARBOR, WI .....	2818					
KEWAUNEE, WI .....	1143,	1172,	1361,	1982,	2177,	2183
KEWAUNEE COUNTY, WI .....	630,	639,	1583,	1584		
KEWAUNEE HARBOR, WI .....	1361,	2183				
KEWAUNEE NUCLEAR POWER PLANT, WI .....	73,	423,	1313,	1389,	1483,	1484,
	2117					
LAKE BLUFF, IL .....	250,	253,	282,	558,	740,	1300,
	2235,	2403,	2629,	2816		
LAKE CALUMET, IL .....	1136					
LAKE COUNTY, IL .....	7,	47,	62,	193,	246,	319,
	515,	561,	1166,	1265,	1266,	1281,
	1282,	1283,	1524,	1525,	1553,	2365,
	2601					
LAKE COUNTY, IN .....	185,	260,	281,	1167,	1120,	1615,
	2443					
LAKE ERIE .....	1,	2,	3,	6,	11,	12,
	31,	32,	44,	51,	57,	58,
	70,	77,	84,	88,	92,	96,
	97,	101,	107,	108,	109,	110,
	111,	112,	113,	114,	115,	116,
	117,	118,	119,	121,	122,	124,
	126,	127,	128,	133,	135,	136,
	153,	167,	168,	170,	177,	179,
	188,	199,	200,	216,	217,	221,
	223,	224,	225,	239,	241,	242,
	243,	273,	274,	279,	280,	287,
	291,	292,	293,	294,	295,	296,
	297,	298,	307,	309,	317,	318,
	328,	333,	340,	349,	352,	353,
	358,	360,	361,	372,	373,	376,
	380,	381,	382,	383,	392,	396,
	404,	405,	412,	425,	432,	433,
	435,	448,	449,	455,	458,	464,
	468,	470,	474,	483,	519,	522,
	538,	539,	541,	542,	544,	549,
	553,	554,	570,	571,	572,	573,
	574,	582,	590,	596,	608,	610,
	613,	614,	618,	621,	622,	623,
	628,	635,	636,	637,	644,	682,
	688,	690,	691,	692,	693,	694,
	696,	699,	705,	706,	707,	709,
	712,	713,	715,	716,	725,	727,
	758,	765,	769,	770,	775,	781,
	782,	784,	789,	798,	804,	805,
	808,	809,	812,	813,	815,	820,
	828,	833,	838,	852,	865,	869,
	870,	871,	872,	891,	892,	913,
	923,	929,	930,	932,	941,	944,
	945,	950,	957,	958,	959,	965,
	971,	993,	1003,	1004,	1005,	1007,
	1009,	1010,	1011,	1012,	1013,	1015,

LAKE ERIE (continued) ..... 1017, 1019, 1020, 1021, 1022, 1023,  
1024, 1025, 1026, 1028, 1029, 1030,  
1032, 1034, 1040, 1041, 1042, 1043,  
1052, 1057, 1058, 1061, 1066, 1070,  
1082, 1087, 1088, 1097, 1108, 1114,  
1121, 1122, 1124, 1129, 1132, 1135,  
1145, 1150, 1152, 1153, 1154, 1156,  
1160, 1161, 1170, 1171, 1172, 1175,  
1182, 1183, 1185, 1196, 1198, 1202,  
1204, 1209, 1211, 1213, 1214, 1215,  
1217, 1218, 1242, 1253, 1255, 1277,  
1305, 1317, 1321, 1323, 1325, 1326,  
1327, 1328, 1329, 1332, 1333, 1334,  
1335, 1336, 1338, 1339, 1340, 1341,  
1342, 1345, 1347, 1348, 1349, 1350,  
1351, 1353, 1354, 1355, 1356, 1357,  
1358, 1363, 1366, 1393, 1404, 1407,  
1409, 1411, 1416, 1430, 1432, 1433,  
1453, 1460, 1464, 1466, 1475, 1477,  
1489, 1498, 1516, 1520, 1538, 1568,  
1577, 1586, 1591, 1598, 1600, 1601,  
1619, 1620, 1624, 1626, 1627, 1628,  
1629, 1630, 1637, 1638, 1639, 1644,  
1654, 1655, 1659, 1661, 1672, 1673,  
1697, 1703, 1704, 1705, 1710, 1711,  
1727, 1729, 1741, 1742, 1743, 1744,  
1746, 1754, 1761, 1765, 1781, 1783,  
1784, 1793, 1794, 1801, 1809, 1810,  
1811, 1812, 1813, 1814, 1818, 1821,  
1822, 1824, 1825, 1827, 1828, 1836,  
1838, 1859, 1860, 1868, 1869, 1870,  
1884, 1888, 1913, 1919, 1920, 1922,  
1923, 1926, 1933, 1944, 1948, 1952,  
1953, 1954, 1955, 1956, 1957, 1958,  
1964, 1966, 1979, 1986, 1999, 2002,  
2003, 2007, 2011, 2031, 2041, 2042,  
2043, 2044, 2075, 2089, 2090, 2100,  
2111, 2113, 2122, 2123, 2127, 2129,  
2130, 2132, 2133, 2152, 2153, 2154,  
2157, 2162, 2163, 2164, 2175, 2179,  
2181, 2187, 2190, 2191, 2192, 2194,  
2196, 2198, 2200, 2201, 2202, 2203,  
2207, 2209, 2210, 2211, 2212, 2216,  
2217, 2218, 2225, 2243, 2246, 2259,  
2261, 2262, 2274, 2275, 2279, 2282,  
2283, 2286, 2290, 2294, 2295, 2296,  
2298, 2299, 2304, 2309, 2310, 2334,  
2335, 2336, 2337, 2338, 2347, 2360,  
2367, 2370, 2386, 2389, 2399, 2405,  
2407, 2411, 2416, 2418, 2426, 2431,  
2438, 2456, 2457, 2458, 2459, 2460,  
2463, 2464, 2474, 2501, 2505, 2527,  
2531, 2532, 2533, 2534, 2535, 2536,  
2541, 2542, 2544, 2549, 2562, 2563,  
2564, 2565, 2567, 2570, 2572, 2573,  
2574, 2575, 2576, 2577, 2578, 2581,  
2583, 2585, 2587, 2605, 2606, 2607,  
2618, 2620, 2623, 2635, 2646, 2648,  
2653, 2654, 2655, 2663, 2680, 2698,



LAKE ERIE (continued) .....	2707,	2708,	2709,	2710,	2712,	2718,
	2734,	2751,	2753,	2775,	2782,	2787,
	2788,	2789,	2790,	2791,	2792,	2793,
	2794,	2796,	2805,	2813,	2831,	2835,
	2838,	2847,	2851,	2861,	2875,	2876,
	2877,	2878,	2879,	2891,	2897,	2904,
	2909,	2910,	2912,	2918,	2920,	2921,
	2922,	2923,	2924,	2926,	2927,	2929,
	2930,	2931,	2932,	2934,	2937,	2947,
	2965,	2967,	2980,	2984,	2987,	2999,
	3004,	3006,	3010,	3019,	3035,	3056,
	3057,	3058,	3065,	3067,	3073,	3081,
	3100,	3101,	3103,	3110,	3111,	3132,
	3134,	3143,	3144,	3154,	3156,	3158

LAKE ERIE BASIN .....	353,	1218
(SA: Great Lakes Basin)		
(SA: Lake Erie)		

LAKE FOREST, IL .....	62,	246,	558,	740,	741,	887,
	1300,	1651,	2235,	2403,	2697,	2760,
	2823					

LAKE HURON .....	1,	2,	6,	12,	31,	32,
	44,	57,	58,	60,	70,	77,
	84,	88,	96,	97,	98,	102,
	107,	108,	109,	110,	112,	113,
	114,	115,	116,	117,	118,	119,
	121,	122,	126,	127,	128,	133,
	134,	135,	136,	153,	167,	168,
	170,	177,	188,	199,	200,	216,
	217,	221,	223,	224,	225,	226,
	239,	241,	243,	265,	273,	274,
	279,	280,	287,	291,	292,	293,
	294,	295,	296,	297,	298,	307,
	309,	310,	311,	317,	318,	328,
	333,	334,	340,	341,	342,	344,
	349,	352,	353,	358,	359,	360,
	361,	363,	372,	373,	376,	377,
	378,	379,	380,	381,	382,	383,
	384,	392,	396,	404,	405,	412,
	422,	425,	432,	433,	435,	448,
	449,	455,	458,	464,	468,	470,
	474,	483,	492,	519,	522,	523,
	538,	539,	541,	542,	544,	546,
	548,	553,	554,	570,	571,	572,
	573,	574,	582,	588,	589,	590,
	591,	596,	608,	610,	613,	614,
	615,	616,	618,	621,	622,	623,
	628,	635,	636,	637,	644,	688,
	690,	691,	692,	693,	694,	696,
	699,	705,	706,	707,	709,	712,
	713,	715,	716,	725,	727,	758,
	765,	769,	770,	775,	781,	782,
	784,	789,	798,	804,	805,	808,
	809,	812,	813,	815,	820,	828,
	833,	838,	852,	869,	870,	871,
	872,	891,	892,	913,	921,	923,
	924,	929,	930,	941,	950,	957,
	958,	959,	965,	971,	989,	993,

LAKE HURON (continued) ..... 1004, 1005, 1007, 1009, 1010, 1011,  
1012, 1013, 1015, 1017, 1019, 1020,  
1021, 1022, 1023, 1024, 1025, 1026,  
1028, 1029, 1030, 1032, 1034, 1040,  
1041, 1042, 1043, 1052, 1057, 1058,  
1061, 1066, 1070, 1071, 1082, 1087,  
1088, 1097, 1108, 1114, 1121, 1122,  
1124, 1129, 1132, 1135, 1145, 1150,  
1152, 1153, 1154, 1156, 1157, 1158,  
1160, 1161, 1172, 1175, 1182, 1183,  
1185, 1198, 1202, 1204, 1209, 1211,  
1212, 1213, 1214, 1215, 1217, 1218,  
1239, 1240, 1242, 1253, 1255, 1277,  
1305, 1317, 1321, 1323, 1325, 1326,  
1327, 1328, 1329, 1332, 1333, 1334,  
1335, 1336, 1338, 1339, 1340, 1341,  
1342, 1345, 1347, 1348, 1349, 1350,  
1351, 1353, 1354, 1355, 1356, 1357,  
1358, 1363, 1366, 1393, 1402, 1409,  
1411, 1416, 1430, 1432, 1433, 1453,  
1460, 1463, 1464, 1466, 1475, 1477,  
1489, 1498, 1516, 1520, 1538, 1546,  
1548, 1550, 1552, 1562, 1567, 1568,  
1586, 1587, 1588, 1589, 1591, 1598,  
1600, 1601, 1604, 1607, 1611, 1619,  
1621, 1624, 1626, 1627, 1628, 1629,  
1630, 1637, 1638, 1639, 1644, 1654,  
1655, 1659, 1661, 1672, 1673, 1679,  
1680, 1681, 1697, 1703, 1704, 1705,  
1710, 1711, 1717, 1727, 1729, 1736,  
1741, 1742, 1743, 1746, 1754, 1781,  
1783, 1784, 1793, 1794, 1801, 1809,  
1810, 1811, 1812, 1813, 1814, 1818,  
1821, 1822, 1824, 1825, 1827, 1828,  
1836, 1838, 1845, 1851, 1859, 1860,  
1868, 1869, 1870, 1884, 1888, 1897,  
1908, 1910, 1913, 1919, 1920, 1921,  
1922, 1923, 1926, 1933, 1944, 1948,  
1952, 1953, 1954, 1955, 1956, 1957,  
1958, 1964, 1966, 1979, 1986, 1999,  
2002, 2003, 2007, 2011, 2019, 2031,  
2036, 2044, 2057, 2089, 2090, 2100,  
2111, 2113, 2122, 2123, 2127, 2129,  
2130, 2132, 2133, 2152, 2153, 2154,  
2157, 2160, 2162, 2163, 2169, 2175,  
2179, 2181, 2187, 2190, 2191, 2192,  
2194, 2196, 2197, 2198, 2200, 2201,  
2202, 2203, 2207, 2209, 2210, 2211,  
2212, 2216, 2217, 2218, 2225, 2246,  
2259, 2261, 2262, 2274, 2275, 2279,  
2282, 2283, 2286, 2290, 2293, 2294,  
2295, 2296, 2298, 2299, 2304, 2309,  
2310, 2326, 2334, 2335, 2336, 2337,  
2338, 2342, 2360, 2367, 2370, 2393,  
2395, 2399, 2405, 2407, 2416, 2418,  
2419, 2421, 2426, 2431, 2456, 2457,  
2458, 2459, 2460, 2463, 2464, 2475,  
2501, 2505, 2527, 2531, 2532, 2533,  
2534, 2535, 2536, 2541, 2542, 2544,

LAKE HURON (continued) .....	2567,	2570,	2572,	2573,	2574,	2575,
	2576,	2577,	2578,	2581,	2583,	2584,
	2585,	2587,	2598,	2605,	2606,	2607,
	2618,	2620,	2623,	2635,	2646,	2648,
	2653,	2654,	2655,	2663,	2665,	2680,
	2686,	2698,	2699,	2701,	2702,	2703,
	2705,	2707,	2708,	2709,	2710,	2718,
	2751,	2753,	2775,	2782,	2787,	2788,
	2789,	2790,	2791,	2792,	2793,	2794,
	2796,	2805,	2813,	2831,	2835,	2838,
	2847,	2851,	2861,	2875,	2876,	2877,
	2878,	2879,	2891,	2897,	2904,	2907,
	2909,	2910,	2912,	2918,	2920,	2921,
	2922,	2923,	2924,	2926,	2927,	2929,
	2930,	2931,	2932,	2934,	2937,	2947,
	2967,	2980,	2984,	2987,	3004,	3006,
	3010,	3019,	3035,	3056,	3057,	3058,
	3065,	3067,	3073,	3081,	3100,	3101,
	3103,	3132,	3133,	3134,	3143,	3144,
	3154,	3156,	3158			

LAKE HURON BASIN .....	353,	377,	1218
(SA: Great Lakes Basin)			
(SA: Lake Huron)			

LAKE MICHIGAN (includes all entries  
except ones which are on Great Lakes  
in general; if known for that publica-  
tion, a more specific area is given,  
i.e., Northern Lake Michigan, or  
Eastern Lake Michigan, or Green Bay,  
etc.)

LAKE MICHIGAN BASIN .....	8,	353,	354,	377,	393,	453,
(SA: Great Lakes Basin)	524,	533,	851,	855,	1077,	1089,
	1093,	1096,	1218,	1307,	1415,	1826,
	1930,	2172,	2188,	2442,	2602,	2915,
	3162,	3164				

LAKE MICHIGAN HARBORS (general) .....	313,	1147
(SA: specific harbors)		

LAKE MICHIGAN SHORELINE .....	344,	567,	835,	846,	1073,	1162,
(SA: specific state's shoreline)	1285,	1528,	1618,	1735,	1808,	2173,
	2174,	2499,	2507,	3042,	3086	

LAKE MICHIGAN TRIBUTARIES  
(S: tributaries)  
(S: specific rivers)

LAKE ONTARIO .....	1,	2,	6,	11,	12,	31,
	32,	57,	58,	70,	84,	88,
	92,	107,	108,	109,	110,	111,
	112,	113,	114,	115,	116,	117,
	118,	119,	121,	122,	124,	126,
	127,	128,	133,	136,	153,	167,
	168,	170,	177,	188,	199,	200,
	217,	221,	223,	224,	225,	239,
	241,	242,	243,	273,	274,	279,
	280,	287,	291,	292,	293,	294,



LAKE ONTARIO (continued) ..... 295, 296, 297, 298, 307, 309,  
317, 318, 333, 358, 359, 360,  
361, 372, 373, 376, 380, 381,  
392, 396, 404, 405, 412, 425,  
432, 433, 435, 448, 449, 455,  
458, 464, 467, 468, 470, 474,  
483, 519, 538, 539, 541, 542,  
544, 549, 553, 554, 570, 571,  
572, 573, 574, 582, 590, 596,  
608, 610, 613, 614, 616, 618,  
621, 622, 628, 635, 636, 637,  
644, 682, 688, 690, 691, 692,  
693, 694, 696, 699, 705, 706,  
707, 709, 712, 713, 716, 725,  
727, 765, 769, 770, 775, 781,  
782, 784, 789, 798, 804, 805,  
808, 809, 812, 813, 815, 820,  
823, 828, 833, 838, 852, 869,  
870, 871, 872, 891, 892, 913,  
923, 924, 928, 929, 941, 944,  
945, 950, 957, 958, 959, 965,  
971, 993, 1003, 1004, 1005, 1007,  
1009, 1010, 1011, 1012, 1013, 1015,  
1017, 1019, 1020, 1021, 1022, 1023,  
1024, 1025, 1026, 1028, 1029, 1030,  
1032, 1040, 1041, 1042, 1043, 1052,  
1057, 1058, 1061, 1070, 1082, 1087,  
1088, 1097, 1108, 1114, 1121, 1124,  
1129, 1132, 1135, 1145, 1150, 1152,  
1153, 1154, 1156, 1160, 1161, 1170,  
1171, 1172, 1175, 1182, 1183, 1185,  
1196, 1198, 1202, 1204, 1209, 1211,  
1213, 1214, 1215, 1217, 1238, 1242,  
1247, 1253, 1255, 1277, 1305, 1317,  
1321, 1323, 1325, 1326, 1327, 1328,  
1329, 1332, 1333, 1334, 1335, 1336,  
1338, 1340, 1341, 1342, 1345, 1347,  
1348, 1349, 1350, 1351, 1353, 1354,  
1355, 1357, 1358, 1363, 1366, 1393,  
1402, 1405, 1409, 1416, 1430, 1432,  
1433, 1453, 1464, 1466, 1475, 1477,  
1498, 1516, 1520, 1538, 1568, 1586,  
1591, 1598, 1600, 1601, 1607, 1620,  
1626, 1627, 1628, 1629, 1630, 1637,  
1638, 1639, 1644, 1654, 1655, 1659,  
1672, 1673, 1678, 1697, 1703, 1704,  
1705, 1710, 1711, 1727, 1729, 1741,  
1742, 1743, 1746, 1754, 1781, 1783,  
1784, 1793, 1794, 1801, 1813, 1821,  
1822, 1825, 1836, 1859, 1860, 1868,  
1869, 1870, 1884, 1886, 1888, 1893,  
1894, 1913, 1919, 1920, 1922, 1923,  
1926, 1944, 1948, 1952, 1953, 1954,  
1955, 1956, 1957, 1958, 1964, 1966,  
1979, 1980, 1986, 1999, 2002, 2003,  
2007, 2011, 2031, 2044, 2089, 2090,  
2091, 2100, 2111, 2113, 2122, 2123,  
2129, 2130, 2132, 2133, 2152, 2153,  
2154, 2157, 2159, 2163, 2175, 2179,

LAKE ONTARIO (continued) .....	2200,	2201,	2202,	2207,	2209,	2210,
	2211,	2212,	2216,	2217,	2218,	2221,
	2225,	2243,	2246,	2259,	2261,	2262,
	2279,	2282,	2283,	2286,	2290,	2294,
	2295,	2296,	2298,	2299,	2304,	2309,
	2310,	2334,	2335,	2336,	2337,	2338,
	2347,	2360,	2367,	2370,	2386,	2399,
	2405,	2407,	2411,	2418,	2419,	2426,
	2431,	2438,	2456,	2457,	2458,	2459,
	2460,	2463,	2464,	2474,	2501,	2505,
	2531,	2532,	2533,	2534,	2535,	2536,
	2540,	2541,	2542,	2544,	2549,	2562,
	2563,	2564,	2565,	2567,	2572,	2573,
	2574,	2575,	2576,	2577,	2578,	2581,
	2583,	2585,	2587,	2605,	2606,	2607,
	2618,	2620,	2623,	2635,	2646,	2648,
	2653,	2654,	2655,	2663,	2680,	2698,
	2700,	2701,	2702,	2703,	2705,	2707,
	2708,	2709,	2710,	2718,	2729,	2751,
	2753,	2775,	2782,	2787,	2790,	2792,
	2793,	2794,	2796,	2805,	2831,	2838,
	2851,	2861,	2875,	2876,	2877,	2878,
	2879,	2891,	2897,	2904,	2909,	2918,
	2920,	2921,	2922,	2923,	2924,	2927,
	2929,	2930,	2931,	2932,	2934,	2937,
	2947,	2965,	2967,	2980,	2984,	2987,
	2999,	3004,	3006,	3010,	3019,	3035,
	3056,	3065,	3067,	3073,	3081,	3100,
	3101,	3103,	3132,	3134,	3143,	3144,
	3154,	3156,	3158			

LAKE ST. CLAIR .....	3,	88,	108,	110,	115,	117,
	119,	122,	126,	127,	224,	280,
	298,	379,	382,	432,	433,	448,
	479,	693,	699,	709,	712,	713,
	715,	716,	913,	993,	1020,	1066,
	1122,	1185,	1336,	1340,	1341,	1354,
	1411,	1601,	1630,	1678,	1742,	1761,
	1801,	1813,	1814,	1828,	1845,	1913,
	1952,	1953,	1955,	1956,	1957,	2007,
	2090,	2162,	2163,	2181,	2192,	2194,
	2198,	2203,	2207,	2210,	2212,	2262,
	2296,	2298,	2299,	2304,	2431,	2460,
	2463,	2464,	2531,	2532,	2542,	2570,
	2606,	2648,	2709,	2710,	2751,	2753,
	2775,	2847,	2927,	3065,	3110,	3111,
	3156					

LAKE SUPERIOR .....	1,	2,	3,	6,	9,	12,
	31,	32,	44,	57,	8,	70,
	77,	84,	88,	92,	96,	97,
	98,	101,	107,	108,	109,	110,
	111,	112,	113,	114,	115,	116,
	117,	118,	119,	121,	122,	124,
	126,	127,	128,	133,	135,	136,
	153,	167,	168,	170,	177,	179,
	188,	199,	200,	216,	217,	221,
	223,	224,	225,	239,	241,	243,
	273,	274,	279,	280,	287,	291,
	292,	293,	294,	295,	296,	297,

LAKE SUPERIOR (continued) .....	298,	307,	309,	317,	318,	328,
	333,	340,	341,	342,	358,	359,
	360,	372,	373,	376,	380,	383,
	384,	392,	396,	404,	405,	412,
	416,	422,	425,	432,	433,	435,
	448,	449,	455,	458,	464,	468,
	470,	474,	482,	483,	522,	523,
	524,	528,	530,	538,	539,	541,
	542,	544,	546,	548,	553,	554,
	570,	571,	572,	573,	574,	582,
	590,	591,	596,	608,	610,	613,
	614,	618,	621,	622,	623,	626,
	628,	630,	636,	637,	644,	682,
	688,	690,	691,	692,	693,	694,
	696,	697,	699,	705,	706,	707,
	709,	712,	713,	716,	725,	727,
	758,	765,	769,	770,	775,	781,
	782,	784,	789,	798,	804,	805,
	808,	809,	812,	813,	815,	820,
	828,	833,	838,	852,	869,	870,
	871,	872,	873,	891,	892,	894,
	897,	913,	923,	929,	930,	941,
	950,	957,	958,	959,	965,	970,
	971,	974,	993,	1004,	1005,	1007,
	1009,	1010,	1011,	1012,	1013,	1015,
	1017,	1019,	1020,	1021,	1022,	1023,
	1024,	1025,	1026,	1028,	1029,	1030,
	1032,	1034,	1040,	1041,	1042,	1043,
	1052,	1057,	1058,	1061,	1064,	1065,
	1070,	1082,	1087,	1088,	1097,	1098,
	1108,	1114,	1121,	1124,	1129,	1132,
	1135,	1144,	1145,	1150,	1152,	1153,
	1154,	1156,	1160,	1161,	1170,	1171,
	1172,	1175,	1182,	1183,	1185,	1190,
	1198,	1202,	1209,	1211,	1213,	1214,
	1215,	1217,	1239,	1240,	1242,	1253,
	1255,	1277,	1305,	1317,	1321,	1323,
	1325,	1326,	1327,	1328,	1329,	1332,
	1333,	1334,	1335,	1336,	1338,	1340,
	1341,	1342,	1345,	1347,	1348,	1349,
	1350,	1351,	1353,	1354,	1355,	1356,
	1357,	1358,	1363,	1366,	1373,	1393,
	1409,	1416,	1432,	1433,	1453,	1460,
	1464,	1466,	1469,	1473,	1475,	1477,
	1489,	1498,	1516,	1520,	1538,	1552,
	1559,	1568,	1569,	1586,	1591,	1598,
	1600,	1601,	1607,	1620,	1621,	1626,
	1627,	1628,	1629,	1630,	1637,	1639,
	1644,	1649,	1654,	1655,	1659,	1661,
	1672,	1673,	1697,	1703,	1704,	1705,
	1710,	1711,	1717,	1727,	1729,	1736,
	1741,	1742,	1743,	1744,	1746,	1754,
	1758,	1781,	1783,	1784,	1791,	1793,
	1794,	1801,	1809,	1810,	1811,	1812,
	1813,	1814,	1821,	1822,	1824,	1827,
	1828,	1829,	1833,	1836,	1838,	1845,
	1859,	1860,	1868,	1869,	1870,	1884,
	1888,	1897,	1899,	1913,	1919,	1920,
	1922,	1923,	1926,	1933,	1944,	1948,



LAKE SUPERIOR (continued) ..... 1958, 1964, 1966, 1973, 1977, 1978,  
 1979, 1984, 1986, 1999, 2002, 2003,  
 2007, 2011, 2057, 2089, 2090, 2091,  
 2094, 2095, 2096, 2097, 2098, 2100,  
 2111, 2113, 2122, 2123, 2129, 2130,  
 2132, 2133, 2152, 2153, 2154, 2157,  
 2160, 2162, 2163, 2169, 2175, 2179,  
 2181, 2183, 2187, 2190, 2191, 2194,  
 2196, 2200, 2201, 2202, 2207, 2209,  
 2210, 2211, 2212, 2216, 2217, 2218,  
 2225, 2236, 2246, 2259, 2261, 2262,  
 2279, 2282, 2283, 2286, 2288, 2290,  
 2293, 2294, 2295, 2296, 2298, 2299,  
 2304, 2309, 2310, 2334, 2335, 2336,  
 2337, 2338, 2347, 2367, 2370, 2389,  
 2399, 2405, 2407, 2409, 2410, 2416,  
 2418, 2419, 2426, 2431, 2438, 2440,  
 2441, 2456, 2457, 2458, 2459, 2460,  
 2463, 2464, 2474, 2488, 2501, 2505,  
 2531, 2532, 2533, 2534, 2535, 2536,  
 2541, 2542, 2544, 2549, 2562, 2563,  
 2564, 2565, 2567, 2570, 2573, 2574,  
 2575, 2576, 2577, 2578, 2581, 2583,  
 2584, 2587, 2594, 2596, 2599, 2605,  
 2606, 2607, 2610, 2611, 2617, 2618,  
 2620, 2623, 2635, 2646, 2651, 2653,  
 2654, 2655, 2663, 2665, 2680, 2686,  
 2698, 2699, 2700, 2701, 2702, 2703,  
 2705, 2707, 2708, 2709, 2710, 2718,  
 2751, 2753, 2775, 2782, 2787, 2790,  
 2791, 2792, 2793, 2794, 2796, 2805,  
 2813, 2831, 2834, 2835, 2838, 2847,  
 2851, 2861, 2875, 2876, 2877, 2878,  
 2879, 2891, 2897, 2904, 2907, 2909,  
 2910, 2912, 2915, 2918, 2920, 2921,  
 2922, 2923, 2924, 2926, 2927, 2929,  
 2930, 2931, 2932, 2933, 2934, 2937,  
 2939, 2947, 2967, 2980, 2984, 2987,  
 3004, 3006, 3010, 3019, 3035, 3056,  
 3057, 3058, 3065, 3067, 3073, 3076,  
 3081, 3082, 3084, 3087, 3088, 3091,  
 3093, 3094, 3096, 3100, 3101, 3103,  
 3110, 3111, 3132, 3133, 3134, 3137,  
 3144, 3154, 3156, 3158

LAKE SUPERIOR BASIN ..... 542, 2915  
 (SA: Great Lakes Basin)

LAKE WINNEBAGO, WI ..... 1569, 2286, 2353, 2354, 2735  
 (Note: only includes those also  
 mentioning Green Bay)

LAKESIDE, MI ..... 1130, 2485

LAPORTE COUNTY, IN ..... 681, 1306, 2312

LARSEN'S REEF, WI ..... 2596

LELAND, MI ..... 2941, 2942

LINCOLN RIVER, MI .....	2273					
LINCOLN TOWNSHIP, MI .....	98,	337,	1736			
LITTLE BAY DE NOC .....	1759,	2090,	2345,	3072		
LITTLE CALUMET RIVER, IN .....	74,	1701,	2547			
LITTLE MANISTEE RIVER, MI .....	3046					
LITTLE SABLE POINT, MI .....	442,	446,	2392,	2396,	2939	
LITTLE SISTER BAY .....	1513					
LITTLE TRAVERSE BAY .....	112,	417,	791,	882,	883,	1139,
	1712,	2008,	2061,	2062,	2230,	2314,
	2526,	2527,	2740			
LOYOLA UNIVERSITY, IL .....	1381,	1382,	1383,	1398,	2981b,	2982
LUDDINGTON, MI .....	232,	269,	513,	600,	612,	1139,
	1143,	1180,	1203,	1779,	2193,	2820,
	3027					
LUDDINGTON HARBOR, MI .....	612,	2820				
LUDDINGTON PUMPED STORAGE RESERVOIR, MI .....	1641					
LUDDINGTON STATE PARK, MI .....	98,	383,	1736			
MACATAWA RIVER, MI .....	2273					
MACKINAW CITY, MI .....	298,	808,	2193			
MANISTEE, MI .....	853,	2016,	2017,	2941,	2942	
MANISTEE COUNTY, MI .....	102					
MANISTEE RIVER, MI .....	850,	1714,	2253,	2273,	2414,	2733
MANISTIQUE, MI .....	98,	1708				
MANISTIQUE RIVER, MI .....	1621,	2253,	2273,	2414,	2733	
MANITOU ISLAND, MI .....	926,	927,	1502,	2305,	2306,	2307,
	2308					
MANITOU PASSAGE .....	442,	446,	926,	927		
MANITOWOC, WI .....	600,	853,	1235,	1373,	1563,	1662,
	1982,	2177,	2803			
MANITOWOC COUNTY, WI .....	480,	630,	639,	899,	1065,	1099,
	1584,	2180,	2808,	3070		
MANITOWOC RIVER, WI .....	189,	1126,	1859,	2253,	2273,	2414
MARINETTE-MENOMINEE HARBOR. WI-MI .....	345,	1192,	1557,	1558		

MARQUETTE, MI .....	682,	958				
MARQUETTE PARK, IN .....	2051					
MENOMINEE, WI .....	298,	808,	2784			
MENOMINEE HARBOR, WI .....	2784					
MENOMINEE RIVER, WI-MI .....	189,	304,	305,	1621,	1714,	1748,
	2253,	2273,	2314,	2329,	2733,	2744,
	3040					
MENOMONEE RIVER, WI .....	53,	91,	92,	190,	191,	484,
	485,	728,	1220,	1490,	2028,	2029,
	2030,	2571,	3005,	3028,	3095	
MEQUON, WI .....	391,	480,	481,	2325,	3166	
MICHIANA, MI .....	98,	1736				
MICHIGAN .....	15,	18,	98,	105,	112,	114,
(SA: specific cities, rivers, or	115,	143,	160,	162,	179,	232,
power plants)	274,	284,	298,	345,	346,	388,
	397,	432,	446,	539,	548,	549,
	591,	652,	666,	674,	682,	735,
	758,	763,	773,	774,	785,	808,
	825,	832,	836,	841,	850,	871,
	878,	905,	944,	958,	964,	975,
	1018,	1028,	1029,	1030,	1041,	1085,
	1130,	1133,	1139,	1143,	1159,	1172,
	1192,	1203,	1342,	1353,	1388,	1441,
	1491,	1557,	1558,	1566,	1586,	1603,
	1609,	1621,	1651,	1652,	1662,	1683,
	1687,	1714,	1759,	1779,	1801,	1802,
	1804,	1805,	1806,	1859,	1902,	1919,
	1925,	1973,	2013,	2016,	2017,	2075,
	2078,	2089,	2104,	2140,	2253,	2264,
	2265,	2273,	2316,	2317,	2323,	2333,
	2345,	2396,	2410,	2419,	2462,	2484,
	2512,	2556,	2615,	2658,	2699,	2707,
	2729,	2740,	2742,	2811,	2890,	2897,
	2908,	2940,	2992,	3057,	3058,	3075
MICHIGAN CITY, IN .....	143,	278,	600,	825,	1308,	1545,
	1547,	1560,	2688,	3074,	3117,	3118
MICHIGAN SHORELINE .....	100,	186,	187,	201,	268,	326,
(SA: Michigan)	332,	334,	338,	343,	348,	384,
	385,	386,	388,	419,	653,	667,
	668,	835,	844,	846,	848,	886,
	898,	904,	909,	911,	1083,	1107,
	1162,	1187,	1250,	1374,	1384,	1435,
	1460,	1528,	1530,	1531,	1548,	1618,
	1735,	1749,	1775,	1808,	1818,	1825,
	1843,	1876,	1878,	2055,	2173,	2174,
	2392,	2447,	2472,	2499,	2507,	2514,
	2637,	2668,	2669,	2793,	2831,	2844,
	2870,	2926,	2939,	3042,	3131	



MICHIGAN WATERS .....	276,	277,	330,	442,	513,	732,
(SA: Michigan)	733,	794,	1002,	1399,	1502,	1780,
(SA: specific sections of	1824,	1827,	1828,	2137,	2140,	2276,
Lake Michigan)	2314,	2344,	2420,	2480,	2552	
MILWAUKEE, WI .....	22,	24,	28,	53,	68,	91,
	114,	115,	152,	179,	191,	196,
	204,	206,	222,	232,	233,	314,
	355,	367,	428,	484,	497,	513,
	549,	568,	569,	591,	600,	634,
	717,	728,	783,	808,	825,	827,
	864,	915,	944,	945,	958,	1127,
	1128,	1139,	1147,	1220,	1235,	1379,
	1413,	1469,	1471,	1485,	1490,	1540,
	1563,	1594,	1643,	1675,	1685,	1690,
	1691,	1696,	1698,	1737,	1738,	1786,
	1833,	1841,	1856,	1882,	1895,	1949,
	1988,	2013,	2016,	2017,	2028,	2029,
	2070,	2177,	2193,	2256,	2257,	2324,
	2439,	2442,	2473,	2504,	2517,	2537,
	2556,	2592,	2604,	2605,	2659,	2738,
	2746,	2749,	2760,	2785,	2803,	2851,
	2883,	2886,	2887,	2919,	2958,	3005,
	3043,	3057,	3058,	3095		
MILWAUKEE COUNTY, WI .....	1099,	1470,	1555,	2800,	2824	
MILWAUKEE HARBOR, WI .....	152,	204,	222,	314,	497,	513,
	827,	944,	1127,	1220,	1594,	1643,
	1786,	2324,	2504,	2592,	2604,	2605,
	2738,	2746,	2883,	2886,	2887	
MILWAUKEE RIVER, WI .....	189,	485,	1220,	1643,	1748,	2273,
	2414,	3099				
MINK RIVER, WI .....	1443,	1444,	1497,	2603		
MOONLIGHT BAY .....	2232					
MORAN TOWNSHIP, MI .....	98,	1736				
MUSKEGON, MI .....	112,	114,	115,	206,	269,	324,
	383,	513,	544,	546,	548,	600,
	647,	732,	758,	808,	822,	958,
	978,	1164,	1235,	1435,	1657,	1658,
	1685,	1877,	1882,	1988,	2013,	2016,
	2017,	2140,	2243,	2388,	2446,	2462,
	2465,	2807,	2919			
MUSKEGON COUNTY, MI .....	102,	388				
MUSKEGON HARBOR, MI .....	732,	2388				
MUSKEGON LAKE, MI .....	112,	298				
MUSKEGON RIVER, MI .....	714,	896,	1714,	2253,	2273,	2414,
	2733					
MUSKEGON STATE PARK, MI .....	1373					

NAUBINWAY, MI .....	808					
NEW BUFFALO, MI .....	631,	1192,	1373,	1557,	1558,	2811
NEW BUFFALO HARBOR, MI .....	631,	1192,	1557,	1558,	2811	
NEW MISSION BAY .....	2068					
NORTH BAY .....	2232					
NORTH CHICAGO, IL .....	253,	558,	740,	756,	1281,	1282,
	1283,	1300				
NORTH MANITOU ISLAND, MI .....	1502,	2305,	2306,	2307,	2308	
(SA: Manitou Island)						
NORTHEASTERN LAKE MICHIGAN .....	283,	926,	927,	1502,	1862,	1863,
	2305,	2306,	2307,	2308		
NORTHERN LAKE MICHIGAN .....	54,	55,	78,	131,	132,	135,
	165,	209,	219,	226,	227,	258,
	259,	277,	290,	299,	305,	320,
	330,	366,	384,	413,	446,	490,
	494,	495,	526,	543,	575,	630,
	639,	685,	686,	721,	738,	875,
	877,	946,	947,	948,	977,	1111,
	1112,	1113,	1115,	1116,	1117,	1142,
	1370,	1371,	1372,	1377,	1384,	1399,
	1442,	1443,	1457,	1458,	1459,	1496,
	1497,	1513,	1531,	1561,	1585,	1608,
	1678,	1681,	1700,	1712,	1734,	1749,
	1753,	1759,	1762,	1764,	1789,	1797,
	1837,	1840,	1864,	1890,	1891,	1908,
	1981,	1983,	1997,	2000,	2008,	2068,
	2119,	2156,	2197,	2230,	2233,	2249,
	2314,	2318,	2342,	2393,	2394,	2415,
	2417,	2471,	2497,	2509,	2510,	2526,
	2530,	2550,	2553,	2556,	2557,	2558,
	2598,	2603,	2619,	2656,	2662,	2674,
	2684,	2720,	2735,	2740,	2743,	2744,
	2860,	2888,	2889,	2905,	2914,	2953,
	3012,	3045,	3072,	3076,	3089,	3090,
	3097,	3098,	3155,	3159		
OAK CREEK GENERATING STATION, WI .....	2369					
OCONTO RIVER, WI .....	1126,	1748,	2253,	2273,	2329,	2960,
	3040					
ONION RIVER, WI .....	189					
OTTAWA COUNTY, MI .....	388					
OTTER CREEK, MI .....	2410					
OZAUKEE COUNTY, WI .....	9,	480,	1099			
PALISADES NUCLEAR POWER PLANT, MI .....	105,	213,	2137,	2349,	2350	
PENSAUKEE RIVER, WI .....	2273,	2960				

PENTWATER, MI .....	808, 1080, 1656
PENTWATER HARBOR, MI .....	1080, 1656
PENTWATER MARSH, MI .....	397
PENTWATER RIVER, MI .....	2273
PERE MARQUETTE RIVER, MI .....	2253, 2273, 2414
PERE MARQUETTE TOWNSHIP, MI .....	98, 1736
PESHTIGO RIVER, WI .....	1714, 1748, 2253, 2273, 2329, 2733, 2960, 3040
PETERS MARSH, WI .....	2352
PIGEON RIVER, MI .....	189
PIKE RIVER, WI .....	180, 987
PLATTE RIVER, MI .....	2273, 2701
POINT BEACH, WI .....	480
POINT BEACH NUCLEAR POWER PLANT, WI ....	1483, 1484, 1485, 1486, 1638, 2384, 2690, 3108, 3160
POINT BEACH STATE FOREST, WI .....	1879
POINT BETSIE, MI .....	546, 548
PORT INLAND, MI .....	2193
PORT SHELTON, MI .....	344, 734, 2476
PORT WASHINGTON, WI .....	306, 354, 1674, 2919
PORTAGE LAKE, MI .....	298, 344
PORTER COUNTY, IN .....	281, 550, 586, 1120, 1179, 1306, 2312
PULLIAM GENERATING STATION, WI .....	2119
RACINE, WI .....	808, 1147, 1563, 2388, 2818, 2819, 2886
RACINE COUNTY, WI .....	1063, 1099, 1252, 1379, 1424, 1425, 1426, 1556, 2214, 2440, 2802, 2804, 2822
RACINE HARBOR, WI .....	2388, 2818, 2886
RAPID RIVER, MI .....	1621, 2253
RAWLEY POINT, WI .....	1982
ROCK ISLAND STATE PARK, WI .....	1925



ROOT RIVER, WI .....	2273					
ROSEWOOD PARK, IL .....	2981a					
SALT CREEK BASIN, IN .....	1669					
SAUGATUCK, MI .....	735,	1779,	2140,	2433,	3024	
SAULT STE. MARIE, MI .....	808,	958,	3057,	3058		
SCHOOLCRAFT COUNTY, MI .....	102					
SEOUL CHOIX POINT, MI .....	2410					
SHEBOYGAN, WI .....	266,	530,	671,	906,	1143,	1147,
	1412,	1563,	1651,	2183		
SHEBOYGAN COUNTY, WI .....	1064,	1099,	3028			
SHEBOYGAN RIVER, WI .....	189,	346,	2253,	2273		
SHOREWOOD, WI .....	917					
SILVER LAKE, MI .....	843					
SILVER LAKE STATE PARK, MI .....	1925					
SLEEPING BEAR DUNES NATIONAL LAKESHORE, MI .....	1085,	1384,	2550			
SLEEPING BEAR POINT, MI .....	442,	446,	526			
SOUTH BOULEVARD BEACH, IL .....	2754					
SOUTH FOX ISLAND, MI .....	1456,	2305,	2306,	2307,	2308,	2556
SOUTH HAVEN, MI .....	599,	673,	911,	915,	1651,	2140,
	2180,	2332,	3165			
SOUTH MANITOU ISLAND, MI .....	1502,	2305,	2306,	2307,	2308	
(SA: Manitou Island)						
SOUTHEASTERN LAKE MICHIGAN .....	163,	315,	444,	594,	654,	655,
	666,	667,	668,	674,	677,	714,
	735,	771,	772,	773,	778,	794,
	860,	896,	903,	905,	907,	921,
	955,	956,	1002,	1006,	1048,	1049,
	1106,	1107,	1130,	1479,	1530,	1610,
	1671,	1715,	1772,	1775,	1787,	1802,
	1907,	1909,	1961,	1968,	1971,	1974,
	2064,	2137,	2139,	2184,	2185,	2227,
	2251,	2316,	2317,	2321,	2398,	2400,
	2477,	2481,	2482,	2483,	2484,	2485,
	3001,	3024,	3037,	3038,	3051,	3079,
	3114,	3124,	3126			
SOUTHERN LAKE MICHIGAN .....	4,	16,	25,	28,	29,	33,
	38,	40,	41,	45,	48,	50,
	53,	59,	61,	62,	74,	76,
	80,	89,	91,	95,	129,	137,

SOUTHERN LAKE MICHIGAN (continued) .....

141,	143,	146,	149,	150,	151,
154,	158,	161,	164,	166,	171,
172,	173,	174,	175,	176,	179,
183,	185,	190,	191,	192,	193,
195,	196,	197,	198,	205,	207,
208,	211,	215,	228,	229,	232,
233,	235,	245,	247,	248,	249,
250,	252,	253,	254,	257,	260,
261,	264,	272,	278,	281,	282,
303,	314,	319,	347,	351,	355,
367,	390,	398,	400,	411,	414,
427,	428,	429,	430,	447,	450,
454,	456,	457,	459,	460,	463,
465,	476,	484,	485,	487,	488,
497,	501,	509,	510,	511,	512,
516,	517,	532,	550,	551,	552,
555,	556,	557,	559,	560,	561,
562,	563,	564,	565,	566,	567,
568,	569,	577,	578,	586,	587,
595,	597,	601,	602,	604,	627,
632,	638,	642,	652,	653,	670,
680,	689,	718,	722,	728,	730,
733,	739,	742,	743,	744,	752,
753,	754,	755,	756,	762,	766,
799,	802,	819,	825,	833,	835,
837,	839,	857,	858,	867,	884,
885,	887,	888,	889,	890,	900,
911,	912,	916,	920,	925,	928,
933,	936,	938,	939,	940,	949,
951,	953,	954,	960,	961,	962,
966,	979,	981,	983,	999,	1053,
1055,	1059,	1063,	1074,	1090,	1091,
1092,	1093,	1094,	1095,	1096,	1101,
1118,	1120,	1136,	1137,	1146,	1148,
1173,	1174,	1177,	1178,	1179,	1187,
1194,	1199,	1205,	1206,	1207,	1220,
1225,	1238,	1241,	1245,	1246,	1254,
1257,	1258,	1259,	1260,	1262,	1263,
1264,	1265,	1266,	1267,	1269,	1270,
1271,	1272,	1273,	1274,	1275,	1276,
1278,	1280,	1281,	1282,	1283,	1285,
1286,	1287,	1288,	1289,	1291,	1296,
1297,	1298,	1300,	1301,	1303,	1308,
1309,	1310,	1311,	1312,	1314,	1360,
1362,	1364,	1369,	1374,	1379,	1381,
1382,	1383,	1391,	1392,	1398,	1405,
1406,	1413,	1417,	1419,	1420,	1422,
1423,	1440,	1441,	1448,	1449,	1452,
1454,	1455,	1461,	1470,	1490,	1503,
1506,	1510,	1512,	1514,	1515,	1521,
1522,	1523,	1524,	1525,	1529,	1532,
1540,	1544,	1545,	1547,	1551,	1553,
1560,	1578,	1592,	1593,	1594,	1595,
1596,	1609,	1615,	1616,	1617,	1632,
1633,	1634,	1635,	1645,	1647,	1648,
1650,	1651,	1653,	1684,	1685,	1687,
1688,	1690,	1691,	1693,	1694,	1696,
1698,	1701,	1707,	1718,	1719,	1720,
1721,	1722,	1726,	1730,	1732,	1733,

SOUTHERN LAKE MICHIGAN (continued) ..... 1798, 1800, 1808, 1835, 1839, 1841,  
 1847, 1848, 1849, 1850, 1855, 1861,  
 1872, 1873, 1895, 1896, 1903, 1906,  
 1911, 1916, 1917, 1918, 1924, 1960,  
 1962, 1963, 1967, 1969, 1972, 1975,  
 1985, 1991, 2005, 2013, 2017, 2021,  
 2022, 2023, 2024, 2025, 2026, 2030,  
 2039, 2048, 2049, 2050, 2051, 2052,  
 2060, 2070, 2074, 2075, 2078, 2083,  
 2084, 2085, 2092, 2093, 2099, 2104,  
 2105, 2112, 2116, 2141, 2142, 2143,  
 2178, 2182, 2186, 2219, 2239, 2240,  
 2241, 2254, 2255, 2256, 2263, 2264,  
 2266, 2267, 2269, 2270, 2271, 2272,  
 2284, 2287, 2312, 2313, 2322, 2323,  
 2325, 2327, 2333, 2356, 2362, 2366,  
 2371, 2373, 2374, 2375, 2397, 2404,  
 2428, 2430, 2432, 2439, 2444, 2450,  
 2473, 2479, 2480, 2489, 2490, 2491,  
 2492, 2493, 2494, 2495, 2496, 2498,  
 2502, 2503, 2507, 2511, 2512, 2518,  
 2519, 2521, 2522, 2523, 2524, 2525,  
 2547, 2548, 2551, 2571, 2592, 2597,  
 2600, 2604, 2612, 2622, 2624, 2642,  
 2650, 2652, 2657, 2660, 2661, 2666,  
 2670, 2688, 2691, 2693, 2694, 2695,  
 2696, 2697, 2704, 2714, 2715, 2716,  
 2727, 2728, 2731, 2732, 2736, 2737,  
 2746, 2747, 2749, 2750, 2752, 2754,  
 2757, 2758, 2760, 2761, 2763, 2764,  
 2765, 2766, 2767, 2768, 2769, 2770,  
 2771, 2772, 2781, 2785, 2797, 2800,  
 2801, 2806, 2807, 2811, 2812, 2816,  
 2823, 2824, 2829, 2832, 2837, 2839,  
 2843, 2845, 2852, 2853, 2854, 2855,  
 2856, 2857, 2858, 2859, 2862, 2863,  
 2864, 2865, 2866, 2867, 2869, 2880,  
 2881, 2882, 2895, 2903, 2913, 2916,  
 2958, 2966, 2968, 2969, 2971, 2972,  
 2973, 2981, 2982, 2996, 2997, 2999,  
 3005, 3013, 3014, 3015, 3017, 3018,  
 3034, 3043, 3045, 3048, 3049, 3050,  
 3053, 3054, 3055, 3059, 3062, 3066,  
 3077, 3078, 3095, 3099, 3115, 3116,  
 3117, 3118, 3119, 3120, 3121, 3122,  
 3125, 3127, 3128, 3129, 3140, 3147,  
 3149, 3165

SOUTHWESTERN LAKE MICHIGAN ..... 761, 997, 998, 1056, 1252, 1478,  
 1549, 1768, 1987, 2213, 2364, 2376,  
 2377, 2378, 2379, 2380, 2381, 2382,  
 2383, 2447, 2469, 2559, 2870, 3009,  
 3021

ST. CLAIR FLATS ..... 1678

ST. CLAIR RIVER ..... 88, 108, 110, 224, 273, 274,  
 280, 376, 379, 382, 432, 433,  
 591, 715, 891, 892, 923, 993,  
 1020, 1185, 1253, 1335, 1336, 1340,



ST. CLAIR RIVER (continued) .....	1341,	1410,	1919,	2162,	2163,	2190,
	2192,	2198,	2199,	2203,	2225,	2751,
	2753,	2788,	3156			
ST. JOSEPH, MI .....	269,	996,	1002,	1159,	1373,	1775,
	1801,	2017,	2484			
ST. JOSEPH COUNTY, MI .....	1307					
ST. JOSEPH RIVER, MI .....	585,	714,	794,	984,	1714,	1805,
	1806,	1859,	2064,	2137,	2139,	2253,
	2273,	2317,	2414,	2732,	2733,	2940
ST. LAWRENCE RIVER .....	88,	108,	199,	200,	273,	274,
	280,	376,	432,	433,	993,	1015,
	1020,	1145,	1154,	1185,	1335,	1336,
	1340,	1341,	1919,	1948,	1953,	1955,
	1956,	1957,	2033,	2103,	2225,	2422,
	2424,	2508,	2575,	2777,	2778,	2796,
	2830,	2851,	2878,	2892,	2928,	2929,
	3010					
ST. LAWRENCE RIVER BASIN .....	1359,	1654				
ST. MARY'S RIVER .....	88,	108,	110,	170,	226,	273,
	274,	280,	376,	432,	433,	549,
	591,	993,	1185,	1335,	1336,	1340,
	1341,	1621,	1828,	1919,	1953,	1955,
	1956,	1957,	2163,	2190,	2198,	2199,
	2225,	2751,	2753,	2821,	2851,	3156
STEVENSVILLE, MI .....	655,	666,	667,	674,	905,	907,
	909					
STRAITS OF MACKINAC .....	135,	226,	297,	946,	1066,	1139,
	1157,	1158,	1212,	1531,	1562,	1567,
	1630,	1655,	1678,	1679,	1680,	1681,
	1724,	1761,	1789,	1851,	1908,	2160,
	2197,	2286,	2393,	2394,	2395,	2415,
	2412,	2544,	2556,	2557,	2598,	2619,
	2686,	2821,	2888,	2964		
STURGEON BAY, WI .....	1147,	1681,	1756,	1864,	1950,	2193,
	2388,	2414				
SUAMICO RIVER, WI .....	475,	2960				
(SA: Big Suamico River)						
SUTTONS POINT, MI .....	1459					
TERRY ANDRAE STATE PARK, WI .....	749,	750,	751,	759,	760,	968,
	1072,	2634,	2745			
THOMPSON, MI .....	1736					
TRAIL CREEK, IN .....	1308,	2273				
TRAVERSE CITY, MI .....	114,	115,	915,	958,	2331,	2419

TRIBUTARIES (general) .....	112,	220,	305,	369,	370,	371,
(SA: specific rivers)	475,	529,	644,	688,	698,	950,
	1026,	1101,	1175,	1233,	1355,	1357,
	1387,	1390,	1473,	1477,	1626,	1673,
	1713,	1801,	1826,	1980,	2063,	2064,
	2073,	2273,	2317,	2370,	2529,	2567,
	2653,	2654,	2890,	2907,	2909,	2924,
	3138					
TWO CREEKS, WI .....	81,	104,	850,	3069		
TWO RIVERS, WI .....	850,	853,	1147,	2016,	2017,	2273
UNION PIER, MI .....	2485					
VAN BUREN COUNTY, MI .....	388,	624				
WARREN DUNES STATE PARK, MI .....	383,	2484				
WAUGOSHANCE POINT, MI .....	1566,	1681				
WAUKEGAN, IL .....	38,	48,	129,	143,	163,	164,
	245,	253,	345,	512,	556,	558,
	600,	722,	730,	740,	741,	744,
	752,	766,	808,	888,	890,	912,
	915,	918,	920,	999,	1054,	1056,
	1074,	1149,	1274,	1276,	1281,	1282,
	1283,	1300,	1514,	1549,	1594,	1645,
	1651,	1662,	1732,	1733,	1785,	2021,
	2022,	2023,	2313,	2333,	2382,	2403,
	2431,	2511,	2512,	2606,	2613,	2639,
	2642,	2658,	2661,	2664,	2691,	2696,
	2697,	2704,	2709,	2747,	2760,	2765,
	2768,	2797,	2856,	2863,	2864,	2867,
	2895,	3013,	3014,	3021,	3066	
WAUKEGAN GENERATING STATION, IL .....	215,	1314				
WAUKEGAN HARBOR, IL .....	245,	345,	512,	600,	740,	741,
	744,	766,	890,	912,	918,	1054,
	1149,	1274,	1276,	1594,	1651,	1732,
	1733,	1785,	2021,	2022,	2023,	2313,
	2431,	2606,	2661,	2691,	2696,	2697,
	2704,	2709,	2747,	2765,	2768,	2797,
	2856,	2863,	2864,	2895,	3013,	3014,
	3066					
WAVERLY BEACH, IN .....	1510					
WESTERN LAKE MICHIGAN .....	23,	39,	212,	395,	437,	478,
	669,	671,	759,	906,	917,	968,
	1072,	1163,	1166,	1483,	1484,	1692,
	1980,	1982,	2120,	2214,	2257,	2355,
	2368,	2369,	2612,	2634,	2690,	2745,
	2804,	2809,	2818,	2822,	3020,	3086
WHITE LAKE, MI .....	344,	846,	2476,	3130		
WHITE RIVER, MI .....	2253,	2273				

WHITEFISH BAY, WI .....	917					
WHITEFISH POINT REEF, WI .....	2594					
WHITEFISH RIVER, MI .....	1621,	2253,	2273,	2733		
WHITING, IN .....	2797					
WHITING PARK, IN .....	1311					
WILMETTE, IL .....	558,	740,	744,	752,	890,	1071,
	1274,	1645,	2403,	2760,	2769,	2797
WILMETTE HARBOR, IL .....	744,	890,	1274,	2769,	2797	
WILMETTE REEF, IL .....	564,	833				
WIND POINT, WI .....	2711					
WINNETKA, IL .....	48,	246,	558,	740,	741,	756,
	1276,	1300,	2403			
WINTHROP HARBOR, IL .....	918,	920,	1300,	1523,	2235,	2403
WISCONSIN .....	9,	10,	22,	23,	24,	28,
(SA: specific cities, rivers, or	29,	30,	53,	55,	60,	63,
power plants)	68,	73,	80,	81,	91,	92,
	94,	104,	114,	115,	152,	165,
	179,	180,	181,	183,	184,	189,
	190,	191,	196,	201,	202,	204,
	206,	210,	219,	222,	229,	232,
	233,	255,	256,	258,	259,	266,
	274,	284,	298,	304,	305,	306,
	307,	314,	320,	326,	345,	346,
	354,	355,	366,	367,	386,	387,
	391,	395,	402,	406,	413,	418,
	423,	428,	432,	434,	436,	437,
	438,	451,	475,	476,	477,	478,
	480,	481,	482,	484,	485,	497,
	498,	513,	530,	539,	549,	568,
	569,	580,	591,	600,	603,	605,
	630,	634,	639,	671,	685,	686,
	687,	697,	708,	717,	728,	738,
	749,	750,	751,	759,	760,	763,
	783,	806,	807,	808,	810,	823,
	825,	827,	829,	832,	847,	850,
	853,	864,	867,	871,	877,	881,
	893,	898,	906,	915,	917,	920,
	937,	942,	944,	945,	948,	958,
	960,	964,	968,	977,	985,	986,
	987,	991,	1018,	1028,	1029,	1030,
	1041,	1043,	1054,	1063,	1064,	1065,
	1068,	1070,	1072,	1089,	1098,	1099,
	1116,	1117,	1126,	1127,	1128,	1139,
	1143,	1147,	1155,	1163,	1166,	1167,
	1169,	1172,	1192,	1201,	1220,	1221,
	1235,	1252,	1304,	1313,	1342,	1353,
	1361,	1370,	1371,	1373,	1377,	1378,
	1379,	1388,	1389,	1390,	1408,	1412,



WISCONSIN (continued) .....	1469,	1470,	1471,	1473,	1481,	1483,
	1484,	1485,	1486,	1490,	1496,	1497,
	1508,	1511,	1513,	1526,	1533,	1540,
	1545,	1547,	1548,	1549,	1554,	1555,
	1556,	1557,	1558,	1559,	1563,	1575,
	1583,	1584,	1585,	1586,	1594,	1595,
	1603,	1613,	1643,	1651,	1662,	1674,
	1675,	1683,	1685,	1689,	1690,	1691,
	1696,	1698,	1724,	1734,	1737,	1738,
	1748,	1750,	1756,	1758,	1760,	1762,
	1764,	1786,	1791,	1797,	1829,	1831,
	1832,	1833,	1834,	1841,	1844,	1856,
	1859,	1861,	1864,	1879,	1881,	1882,
	1890,	1891,	1895,	1919,	1925,	1927,
	1928,	1949,	1977,	1978,	1981,	1982,
	1983,	1988,	1996,	1997,	2013,	2016,
	2017,	2028,	2029,	2030,	2066,	2070,
	2073,	2089,	2106,	2107,	2108,	2117,
	2118,	2119,	2147,	2157,	2177,	2183,
	2193,	2214,	2231,	2232,	2236,	2237,
	2253,	2256,	2257,	2273,	2289,	2314,
	2319,	2324,	2325,	2329,	2352,	2353,
	2354,	2355,	2357,	2358,	2369,	2381,
	2384,	2388,	2414,	2439,	2440,	2441,
	2442,	2452,	2453,	2463,	2469,	2470,
	2473,	2487,	2497,	2499,	2504,	2509,
	2510,	2517,	2529,	2530,	2537,	2538,
	2556,	2569,	2571,	2589,	2590,	2591,
	2592,	2599,	2600,	2603,	2604,	2605,
	2608,	2609,	2610,	2612,	2613,	2616,
	2634,	2659,	2660,	2662,	2674,	2684,
	2687,	2690,	2707,	2709,	2711,	2720,
	2733,	2735,	2738,	2740,	2741,	2742,
	2743,	2745,	2746,	2749,	2760,	2774,
	2784,	2785,	2786,	2793,	2800,	2802,
	2803,	2804,	2808,	2809,	2818,	2819,
	2822,	2824,	2825,	2826,	2831,	2834,
	2848,	2851,	2860,	2883,	2886,	2887,
	2889,	2890,	2897,	2905,	2914,	2919,
	2932,	2958,	2960,	3005,	3012,	3022,
	3028,	3029,	3034,	3040,	3043,	3057,
	3058,	3062,	3069,	3070,	3083,	3085,
	3087,	3088,	3089,	3092,	3093,	3094,
	3095,	3097,	3098,	3099,	3108,	3137,
	3160,	3166				
WISCONSIN HARBORS (general) .....	1147					
WISCONSIN PORTS (general) .....	1758					
WISCONSIN SHORELINE .....	9,	10,	23,	28,	30,	63,
(SA: Wisconsin)	80,	104,	165,	181,	183,	196,
	201,	255,	326,	354,	386,	387,
	395,	402,	428,	434,	436,	437,
	438,	476,	482,	498,	603,	605,
	630,	639,	697,	750,	751,	760,
	806,	807,	810,	847,	853,	898,
	906,	917,	937,	960,	985,	986,
	1043,	1064,	1065,	1070,	1089,	1098,
	1099,	1126,	1155,	1163,	1167,	1378,

WISCONSIN SHORELINE (continued) .....	1379,	1413,	1424,	1425,	1426,	1469,
	1470,	1496,	1497,	1511,	1513,	1533,
	1540,	1548,	1549,	1555,	1559,	1613,
	1696,	1698,	1750,	1797,	1829,	1833,
	1856,	1977,	1978,	1981,	1996,	2066,
	2070,	2106,	2107,	2108,	2257,	2289,
	2440,	2441,	2452,	2453,	2463,	2469,
	2470,	2538,	2589,	2608,	2609,	2610,
	2612,	2674,	2687,	2720,	2785,	2786,
	2793,	2800,	2802,	2804,	2808,	2809,
	2819,	2822,	2824,	2831,	3029,	3034,
	3043,	3069,	3070,	3088,	3094,	3137
WISCONSIN TRIBUTARIES .....	475,	2073,	2529			
(SA: specific rivers)						
(SA: tributaries)						
WISCONSIN WATERS .....	229,	513,	530,	600,	749,	759,
(SA: Wisconsin)	827,	1377,	1443,	1508,	1583,	1791,
(SA: Green Bay)	1879,	2232,	2314,	2381,	2384,	2388,
(SA: specific sections of	2592,	2604,	2634,	2690,	2745,	2746,
Lake Michigan)	2848,	3083,	3087,	3092		
WOLF RIVER, IL .....	1169,	2357,	3097,	3098		
ZION, IL .....	671,	673,	741,	918,	920,	999,
	1297,	1300,	2024,	2235,	2382,	2760,
	2969					
ZION BEACH RIDGE, IL .....	557,	1545,	1547			
ZION NUCLEAR POWER PLANT, IL .....	215,	997,	1254,	1312,	1314,	1369,
	3149					







